

## **PENDING APPLICATIONS**

**Philip Morris Incorporated  
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**January 3, 1984**

Code 1 - Offensive/Urgent  
Code 2 - Defensive/Urgent  
Code 3 - Offensive/Normal  
Code 4 - Defensive/Normal

**1000082771**

900044 PM 810/MICROBIAL NITRATE REMOVAL FROM TOBACCO MATERIALS BY DISSIMILATORY DENITRIFICATION

B. Semp (Park 500) and D. Teng  
Biomaterials/Whidby/Farone

A process for the reduction of the nitrate-nitrogen content of tobacco by microbial treatment is disclosed. Tobacco materials are subjected, under controlled conditions, to the action of a microorganism effective in its ability to degrade nitrates through biochemical reactions in which nitrogen gas is ultimately formed. The process is applicable for all types of tobacco materials such as tobacco filler, aqueous tobacco extracts, stems, and tobacco processing streams from various reconstitution processes, as well as tobacco processing effluent. Tobacco materials treated in accordance with this process, when incorporated into a tobacco smoking product, have been found to deliver a significantly reduced amount of oxides of nitrogen in the smoke.

Gregory/F&N/Haley

- 4-25-78 Filed in PTO; assignment recorded.  
11-18-78 Prior art statement.  
6-22-79 Action allowing all claims.  
7-24-79 Amendment.  
9-79 Supplemental prior art statement.  
10-3-79 Examiner's communication indicating merits suspended pending availability of references.  
4-2-80 Status check.  
7-11-80 Action rejecting all claims.  
10-2-80 Request for 1-month extension. Approved.  
10-10-80 Associate power of attorney  
11-10-80 Amendment.  
10-19-81 Action suggesting claim for interference (response due 12-3-81).  
12-3-81 Amendment.  
12-4-81 Associate power of attorney for F&N.  
5-5-82 Interference declared with B&W—see Int. 100875.  
11-10-83 Cross-license agreement to NY for signature by PM officer in settlement of interference.

Corresponding foreign applications/patents in: Argentina, Australia, Brazil, Canada, Pakistan, Venezuela, and EPO designating Belgium, France, Germany, Italy, Netherlands, Switzerland, and UK.

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1000082772

939758 PM 790/PROCESS FOR IMPROVING TOBACCO

H. Gaisch and U. Nyffler  
FTR

A culture of microorganisms requiring oxygen but capable of living anaerobically while using nitrates and/or nitrites as oxygen source, which are brought to their exponential growth phase under anaerobic conditions, and are made to react under like conditions on the nitrates and/or nitrites, until the nitrates and/or nitrites are reduced to the desired level and the effect of the microorganisms is then stopped.

Gregory/F&N/Haley

9-5-78 Filed in PTO; assignment recorded.  
9-18-78 Notice from PTO indicating a drawing required.  
9-26-78 Instructions from PTO to disregard 9-18-78 communication.  
11-18-78 Prior art statement.  
7-12-79 Examiner's communication indicating merits suspended pending availability of a reference.  
10-15-79 Supplemental prior art statement.  
1-16-80 Status check.  
6-11-80 Action rejecting Claims 1-2, 4-6, and 9 and objecting to 3, 7-8.  
7-21-80 Request for clarification of 6-11-80 action.  
11-10-80 Associate power attorney for WLKT.  
9-29-80 Clarification of 6-11-80 action.  
12-19-80 Request for 1-month extension. Approved.  
1-16-81 Amendment.  
10-9-81 Notification suspending merits pending outcome of interference.

Corresponding foreign applications/patents in: Australia, Belgium, Canada, France, Germany, Luxembourg, Netherlands, Switzerland, and UK.

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1000082773

004626 PM 848/PROCESS FOR IMPROVING TOBACCO

H. Gaisch and U. Nyffeler  
FTR

A process for reducing the content of nitrate and/or nitrite salts contained in tobacco is disclosed whereby tobacco is treated, under controlled aerobic conditions, with microorganisms capable of degrading nitrates and/or nitrites to other nitrogen-containing compounds, such as proteins and amino acids.

Gregory/F&N/Haley

- 1-17-79 Filed in PTO; assignment recorded.  
Prior art statement.  
11-29-79 Priority document submitted.  
7-11-80 Action rejecting all claims.  
10-2-80 Request for 1-month extension. Approved.  
10-10-80 Associate power of attorney for WLKT.  
11-10-80 Amendment.  
9-30-81 Notice suspending merits pending outcome of interference.

Corresponding foreign applications/patents in: Australia, Belgium, Canada, France, Germany, Italy, Luxembourg, Netherlands, Switzerland, and UK.

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066273 PM 838/IMPROVED PROCESS FOR DISSIMILATORY DENITRIFICATION OF TOBACCO MATERIALS

B. Semp (Park 500) and D. Teng  
Biomaterials/Whidby/Farone

Gregory/F&N/Haley

- 8-13-79 Filed in PTO; assignment recorded.  
10-79 Prior art statement.  
7-1-80 Action allowing Claims 1-19 and rejecting 20.  
7-21-80 Request for clarification of action.  
10-10-80 Associate power of attorney for WLKT.  
9-29-80 Clarification; time limit changed to expire 3 months from this date.  
12-19-80 Request for 1-month extension. Approved.  
1-29-81 Amendment.  
3-2-81 Supplemental amendment.  
9-24-81 Final rejection (response due 21 December)--to F&N.  
12-16-81 Associate power of attorney for F&N.  
12-21-81 Amendment.  
1-21-82 Notice of appeal.  
2-8-82 Notification suspending merits pending outcome of interference.  
9-16-82 Status inquiry.

Corresponding foreign applications/patents in: Argentina, Australia, Brazil, Canada, Ecuador, Mexico, Nigeria, Philippines, Venezuela, and EPO designating Belgium, France, Germany, Italy, Netherlands, Switzerland, and UK.

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1000082774

123247 PM 808/TOBACCO TREATMENT

G. Keritsis  
Tobacco Fundamentals/Watson/Turano

A process for maximizing reduction of gas phase components during combustion of tobacco products is disclosed. The process comprises contacting tobacco material with an aqueous solution to form a tobacco extract. After separating the extract from the fibrous tobacco portion, the extract is treated to remove potassium nitrate by ion exchange, electrodialysis, crystallization techniques or the like. Thereafter, potassium ions in the form of a potassium salt other than potassium nitrate are restored to the potassium depleted tobacco and/or extract to a level approximating that originally present in the tobacco prior to extractions.

Inskeep/F&N/Diana

2-21-80 Filed in PTO; assignment recorded.  
12-15-80 Action allowing Claim 9 and rejecting 1-8.  
3-12-81 Amendment.  
7-16-81 Final rejection (response due 16 October)—to F&N.  
9-18-81 Associate power of attorney for F&N.  
10-15-81 Amendment.  
11-81 Request for 1-month extension for appeal. Approved.  
11-30-81 Status letter.  
12-10-81 Advisory action.  
1-6-82 Notice of appeal.  
3-8-82 Appeal brief.  
12-10-82 Status inquiry.  
1-6-83 Response indicating appeal awaiting setting of hearing date.

Corresponding foreign applications/patents in: Argentina, Australia, Canada, Ecuador, Greece, Mexico, Nigeria, Philippines, Spain, Venezuela, EPO designating Belgium, France, Germany, Italy, Netherlands, Switzerland, and UK, and PCT designating Brazil, Denmark, Japan, and USSR.

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1000082725

156910 PM 913/CONTINUOUS METHOD FOR DENITRATING TOBACCO EXTRACTS

H. Gaisch, B. Krasna, D. Schulthess, C. Ruf  
FTR

An improved method of reducing the nitrate, nitrite and ammonium compound content of an aqueous tobacco extract employing microorganisms is described. The nitrates, nitrites and ammonium compounds are eliminated on a continuous basis via an aerobic assimilatory metabolic pathway by introducing aqueous tobacco extract and necessary additives into a work mixture, containing suitable microorganisms, at a dilution rate which does not exceed the growth rate of the microorganisms while withdrawing a portion of the work mixture at a rate such that the volume of the work mixture remains constant. Optionally the biomass may be removed from the withdrawn mixture.

Gregory/F&N/Haley

6-6-80 Filed in PTO; assignment recorded.  
8-14-80 Prior art statement.  
12-19-80 Claim of priority.  
11-24-80 Assignee's consent to rule 45(c) amendment.  
12-80 Rule 45(c) amendment.  
9-21-81 Action allowing claims 32-45 and rejecting 1-31 (response due 12-21-81)--to F&N.  
12-16-81 Associate power of attorney for F&N.  
12-21-81 Amendment.  
3-26-82 Notification suspending merits pending outcome of interference.  
9-16-82 Status inquiry.

Corresponding foreign applications/patents in: Australia, Brazil, Canada, Luxembourg, and Germany and EPO designating Belgium, France, Germany, Italy, Netherlands, Switzerland, and UK.

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1000082776

160625 PM 892A/BEAM ALIGNMENT TOOL AND METHOD

E. Grollimund and P. Martin  
Engineering/Kay/Taylor  
Physical Research/LaRoy/Farone

A method and apparatus for adjusting the alignment of a beam of radiant energy relative to a structure. A target is placed in the path of the beam, with an opaque reticle disposed in front of the target in the path of the beam in predetermined alignment with the structure. The beam impinges on the target to form a beam image and the reticle casts a shadow within the beam image. The positional relationship between the shadow and the outline of the beam image will be altered by any misalignment between the beam and the structure. The target is preferably chosen so that it will be permanently altered by the radiant energy of the beam, and the positional relationship between the shadow and the outline is preferably observed after exposure of the target to the beam.

Gregory

6-18-80	Filed in PTO; assignment recorded.
11-17-80	Formal drawings submitted.
5-11-81	Change in power of attorney.
6-26-81	Change in power accepted.
3-4-82	Action rejecting all claims (response due 4 June).
5-21-82	Request for 1-month extension. Approved.
7-2-82	Amendment.
8-23-82	Action rejecting Claims 1-7 and 12-13 and objecting to 8-11 (response due 23 November).
11-16-82	Amendment.
1-19-83	Notice of allowance (base issue fee due 4-19).
3-22-83	Base issue fee paid.
4-8-83	PTO communication indicating March 4 amendment entered.
11-2-83	Status inquiry.

Corresponding foreign applications/patents in: Australia.

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1000082776

177291 PM 976/DISPENSING ASSEMBLY FOR AMMONIUM CARBAMATE  
PRODUCTION

J. Washington, D. Fillenwarth, and F. Utsch  
Development Engineering/Mutter/Turano  
Tobacco Materials/Knudson/Turano

This invention provides a dispensing assembly which is adapted to deliver two separate instantaneously coreactive liquid streams into an external contacting zone. The two reactants do not make contact within the body of the dispensing assembly, which prevents solid product formation and clogging within the dispensing assembly nozzles. The dispensing assembly is suitable for the coreaction of liquid carbon dioxide and liquid ammonia to produce free-flowing ammonium carbamate powder having a purity of substantially 100 percent.

ISSUED Inskeep  
8-11-80 Filed in PTO; assignment recorded.  
11-25-80 Prior art statement.  
3-24-82 Status request.  
4-15-82 PTO communication indicating we can expect action by May 30.  
6-24-82 Action.  
7-6-82 Amendment.  
1-5-83 Action rejecting all claims (response due 4-5).  
3-30-83 Amendment.  
6-17-83 Notice of allowance (base issue fee due 17 September).  
9-12-83 Base issue fee paid.  
12-13-83 Issued: 4420635

No corresponding foreign applications/patents.

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1000082778

189417 PM 975/PREPARATION OF OXYCARBOXYLIC ACIDS

W. Edwards III  
Chemical Research/Sanders/Osdene

This invention provides a process for the conversion of an alicyclic alpha,beta-olefinically unsaturated ketone compound to an acyclic oxycarboxylic acid product which contains at least one less carbon atom per molecule than the ketone starting material. The conversion involves ozonation of the alicyclic alpha,beta-olefinically unsaturated ketone in an aqueous alcohol reaction medium, followed by a heating step.

Inskeep/D&O

- 9-22-80 Filed in PTO; assignment recorded.  
12-8-90 Prior art statement.  
2-3-81 Action rejecting all claims.  
4-24-81 Response.  
8-4-81 Action indicating informal allowance.  
8-26-81 Response.  
12-21-81 Examiner's communication indicating allowance pending outcome of question of interference.  
6-23-82 Status inquiry.  
1-12-83 Status inquiry.  
8-26-83 Action indicating allowance and proposing count for interference (response due 25 October).  
10-17-83 Amendment adding proposed count.

No corresponding foreign applications/patents.

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1000082779

189891 PM 641 DIV/MODIFIED CELLULOUSIC SMOKING MATERIAL AND METHOD  
FOR ITS PREPARATION

G. Keritsis  
Tobacco Fundamentals/Watson/Turano

An improved smoking material affording reduced particulate matter and puff count yet having the flavor and aromatic qualities of natural tobacco, which comprises cellulosic material having incorporated therein a metal salt from the group consisting of calcium salts, magnesium salts, iron salts, and aluminum salts of various organic or inorganic acids. A process for producing such a synthetic smoking material is also disclosed. The process preferably comprises forming an aqueous slurry of the cellulosic material, preferably in the form of loose and slightly beaten cellulose fibers, adding the metal salt to the slurry, casting the same and thereafter drying, conditioning and slitting or cutting the resulting sheet to produce a low tar filler material. A preferred embodiment of the invention resides in foaming the slurry prior to casting the same to form an expanded product.

Inskeep

9-22-80 Filed in PTO; preliminary amendment.  
4-30-81 Change in power of attorney.  
7-30-81 Change in power accepted.  
10-22-81 Action.  
11-2-81 Amendment.  
8-25-82 Action rejecting all claims (response due 25 November).  
11-19-82 Amendment.  
3-2-83 Action indicating informal allowance.  
4-18-83 Amendment.  
11-30-83 Status inquiry.  
12-9-83 Examiner's communication: ex parte prosecution suspended for 6 months--relevant reference may soon be available.

Foreign applications/patents corresponding to parent (USSN 930328) in: Canada, Germany, Switzerland, and UK.

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1000082780

204974 PM 964/SMOKING COMPOSITIONS

Y. Houminer and H. Grubbs  
Chemical Research/Sanders/Osdene

This invention provides tobacco and non-tobacco smoking compositions which contain a heterocyclic-hydroxy-substituted carboxylate compound as a flavorant additive.

Inskeep

11-7-80 Filed in PTO; assignment recorded.  
2-5-81 Prior art statement.  
9-14-81 Restriction requirement.  
9-25-81 Response electing Claims 11-31.  
10-26-82 Status inquiry.  
11-18-82 Restriction requirement.  
11-26-82 Response electing Group III (Claims 11-31).  
3-1-83 Action indicating informal allowance.  
4-20-83 Amendment.

Corresponding foreign applications/patents in: Argentina, Australia, Brazil, Canada, Venezuela, and EPO designating Belgium, France, Germany, Italy, Netherlands, Switzerland, and UK.

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220196 PM 868 DIV I/SMOKING COMPOSITIONS

E. Sanders and Y. Houminer  
Chemical Research/Sanders/Osdene

This invention provides tobacco and non-tobacco smoking compositions which contain a pyrazine-containing polyheterocyclic compound as a flavorant additive.

Inskeep/D&O

12-23-80 Filed in PTO.  
11-18-82 Action allowing all claims.  
12-13-82 Amendment.  
11-4-83 Examiner's communication: ex parte prosecution suspended for 6 months--relevant reference may soon be available.

No corresponding foreign applications/patents.

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1000082781

**221054 PM 828 DIV/SMOKING COMPOSITIONS**

E. Sanders and Y. Houminer  
Chemical Research/Sanders/Osdene

This invention provides tobacco and non-tobacco smoking compositions which contain a substituted-heterocyclic compound as a flavorant additive.

Inskeep/D&O  
12-29-80 Filed in PTO.  
1-12-83 Status inquiry.  
5-4-83 Action allowing all claims.  
6-10-83 Amendment.

No corresponding foreign applications/patents.

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**259264 PM 1019/FLAVOR-RELEASE BETA-HYDROXY-ESTER COMPOSITIONS**

H. Grubbs and Y. Houminer  
Chemical Research/Sanders/Osdene

This invention provides tobacco and foodstuff compositions which contain a hydroxy-substituted carboxylate compound as a flavorant additive.

Inskeep/D&O  
4-30-81 Filed in PTO; assignment recorded..  
11-19-82 Action allowing claims 1 and 3-15 and rejecting 2 (response due 19 February).  
1-27-83 Amendment.  
5-4-83 Action allowing all claims.  
6-6-83 Amendment.  
12-8-83 Status inquiry.

Corresponding foreign applications/patents in: Australia, Brazil, Canada, and EPO designating France, Germany, Switzerland, and UK.

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1000082782

265635 PM 920 DIV/SMOKING COMPOSITIONS

H. Grubbs and Y. Houminer  
Chemical Research/Sanders/Osdene

This invention provides tobacco and non-tobacco smoking compositions which contain a heterocyclic-hydroxy-substituted carboxylate compound as a flavorant additive.

Inskeep/D&O

5-20-81 Filed in PTO.  
1-12-83 Status inquiry.  
5-4-83 Action allowing all claims.  
6-6-83 Amendment.  
12-8-83 Status inquiry.

Foreign applications/patents corresponding to parent (USSN 122901) in: Argentina, Australia, Brazil, Canada, Ecuador, Philippines, Venezuela, and EPO designating France, Germany, Netherlands, and Switzerland.

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270450 PM 1016/A PROCESS FOR UTILIZING TOBACCO FINES IN MAKING RECONSTITUTED TOBACCO

G. Gellatly  
Tobacco Materials/Knudson/Turano

A process for employing tobacco fines in a system for preparing reconstituted tobacco is disclosed. The tobacco fines are incorporated into concentrated extract before the extract is recombined with the reconstituted sheet or into an aqueous carrier. The slurry of fines in extract or other carrier is passed through a homogenizer and then is applied as a coating to the sheet. The further drying and shredding are done in the conventional way.

ISSUED Gregory

6-4-81 Filed in PTO; assignment recorded.  
9-3-81 Prior art statement.  
7-13-82 Action rejecting all claims (response due 13 October).  
10-12-82 Amendment.  
1-25-83 Final rejection (response due 4-25).  
5-19-83 Amendment.  
6-14-83 Examiner's communication indicating informal allowance.  
7-13-83 Notice of allowance (base issue fee due 13 October).  
10-3-83 Base issue fee paid.  
12-20-83 Issued: 4421126

Corresponding foreign applications/patents in: Argentina, Australia, Brazil, Canada, Ecuador, Egypt, Finland, Philippines, S. Africa, Venezuela, and EPO designating France, Germany, Italy, Netherlands, Switzerland, and UK.

1000082783

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**275528 PM 957/ULTRALOW PRESSURE RELIEF VALVE**

W. Sweeney  
Engineering/Taylor/Kay

An ultralow pressure relief valve is disclosed. Sealing fluid is held in place by capillary forces inside the capillary tube. When pressure in the tube exceeds capillary forces, sealing fluid is forced into a reservoir, protecting pressure gage from overpressurization.

Blish

6-19-81 Filed in PTO; assignment recorded.  
10-28-81 Prior art statement.  
3-9-83 Status inquiry; action rejecting all claims (response due 9 June).  
6-17-83 Amendment.  
9-26-83 Action rejecting all claims (response due 26 December).  
12-21-83 Interview with examiner.  
12-23-83 Rule 116 amendment.

No corresponding foreign applications/patents.

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**277467 PM 939/PROCESS FOR FED-BATCH DENITRIFICATION OF TOBACCO**

H. Bravo and B. Semp (Park 500)  
Biomaterials/Whidby/Farone

A fed-batch fermentation process for reducing nitrate and nitrite content of aqueous tobacco extract is disclosed. Tobacco extract is rapidly and efficiently denitrified in accordance with the process by feeding the extract into a fermentor containing appropriate denitrifying microorganisms while providing necessary additives and maintaining conditions under which the nitrate and nitrite are reduced via a dissimilatory pathway. The denitrified extract may be applied to tobacco from which soluble solids have been extracted to form reconstituted tobacco for use in smoking products.

Gregory/F&N/Haley

6-25-81 Filed in PTO; assignment recorded.  
9-23-81 Prior art statement.  
8-16-82 Action rejecting all claims (response due 16 November)--to F&N.  
11-17-82 Associate power of attorney and request for 1-month extension.  
12-16-82 Request for second 1-month extension. Approved.  
1-12-83 Amendment.  
1-17-83 New associate power of attorney.  
4-21-83 Action rejecting all claims (response due 21 July).  
7-20-83 Amendment and supplemental statement under 37 CFR 1.56 and 1.99

Corresponding foreign applications/patents in: Argentina, Australia, Brazil, Canada, Venezuela, and EPO designating Belgium, France, Germany, Italy, Netherlands, Switzerland, and UK.

1000082784

286635 PM 826 Cont./METHOD AND SYSTEM FOR LASER PERFORATION OF SHEET MATERIAL

A. Lilly Jr., W. Claflin, E. Stultz (Louisville), U. Brooks, and P. Martin  
Physical Research/LaRoy/Farone  
New Products/Meyer  
Engineering/Kay/Taylor

In the perforation of sheet material by light energy, a continuous focused laser beam is reflected from different locations along the beam axis to provide separate pulsed beams and the beams are issued onto the sheet material with the same beam cross-sectional area. In one aspect, the lengths of respective different light paths for conveyance of light from the point of focus of the laser to final image locations are made equal. In another aspect, different focusing elements may be included in light paths to provide for sameness of beam cross-sectional area at the final image locations. The light paths are preferably provided in part by light conducting apparatus having light-reflective elements mounted for movement, such that different perforation matrices may be readily attained.

Sarofeen/F&N/Shaw  
8-10-78 Filed in PTO.  
6-21-79 Action rejecting all claims.  
10-19-79 Amendment.  
1-18-80 Action rejecting all claims.  
5-19-80 Amendment.  
7-22-80 Final rejection.  
11-24-80 Amendment.  
4-1-81 Final rejection (response due 1 July); to F&N (Shaw) for response.  
Request for 1-month extension. Approved.  
4-30-81 Change in power of attorney.  
5-21-81 Change in power accepted.  
7-9-81 Associate power of attorney for F&N.  
7-24-81 SN 932566 abandoned and continuation filed in PTO along with preliminary amendment.  
8-26-81 Second preliminary amendment.  
11-30-81 Prior art statement.  
5-25-82 Action requiring restriction.  
6-22-82 Response.  
1-25-83 Petition to expunge and letter.  
2-7-83 Action allowing Claims 36-42 and rejecting 35 (response due 5-7).  
3-7-83 Amendment.  
6-17-83 Action allowing claims 36-42 and rejecting 35 (response due 17 September.)  
8-12-83 Amendment.  
8-26-83 Notice of allowance (base issue fee due 26 November).  
10-27-83 Base issue fee paid.

Foreign applications/patents corresponding to parent (USSN 932566) in: Finland, France, Germany, Italy, Netherlands, Switzerland, UK, and Venezuela.

1000082285

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296233 PM 955/LOW DELIVERY CIGARETTES

G. Keritsis and N. Rainer  
Tobacco Fundamentals/Watson/Turano  
Biomaterials Science/Whidby/Farone

A carbon rod would be fabricated in the same general manner described in PM 622 with the exception that the diameter of the rod would be 8mm. The rod as a segment measuring 10 to 40mm in length would be wrapped in abutment with the tobacco column, and preferably also in abutment on its opposite end with a CA filter plug. It is conceivable, however, that in some embodiments the carbon rod might be utilized without a CA filter plug. When the coal reaches the carbon rod, it burns in a manner resembling the tobacco column, but gives no TPM of its own origin, to provide a type of controlled profile cigarette.

Related to US 4219031 and PM 990.

Blish/F&N/Shaw

8-25-81 Filed in PTO along with preliminary amendment; assignment recorded.  
12-28-81 Prior art statement.  
10-4-82 Letter to PTO re art statement.  
12-7-82 Action rejecting all claims (response due 7 February).  
1-6-83 Response and supplemental declaration.  
1-12-83 Formal drawings filed.  
4-30-83 Action allowing all claims.  
5-17-83 Amendment.  
11-3-83 Action rejecting all claims (response due 3 February).  
11-28-83 Examiner to issue new action with new response date--original action incomplete.

Corresponding foreign applications/patents in: EPO designating Germany, Switzerland, and UK.

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1000082786

299262 PM 921 Cont./METHOD AND APPARATUS FOR EMBOSSED FOIL

J. Bowling and W. David  
Engineering/Tew/Kay/Taylor

A method and apparatus for embossing foil to produce warp-free, textured packaging sheet. The method comprises the forming of bosses in the foil while firmly supporting the foil clamped on rigid lands at the perimeter of the boss to be formed. Drawing the foil between rigid male and female walls of a forming cavity while so held, and interposing a sheet of yieldable material between the surface of the female portion of the cavity and the sheet of foil to produce a yieldable matrix against which the foil comes to rest.

Gregory

5-9-80 Filed in PTO; assignment recorded.  
7-18-80 Prior art statement.  
6-3-81 Action rejecting all claims (response due September 3).  
9-1-81 SN 148316 abandoned and continuation filed in PTO.  
12-22-81 Preliminary amendment and letter to draftsman.  
12-15-82 Restriction requirement (response due 15 June).  
5-19-83 Response electing Group I (1-6, 16, 17).  
8-12-83 Action rejecting all claims (response due 12 November).  
10-26-83 Amendment and accompanying letter.

Foreign applications/patents corresponding to parent (USSN 148316) in:  
Australia, Canada, France, Germany, Italy, Switzerland, and UK.

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10000082787

301486 PM 970/LOW DELIVERY CIGARETTE

L. Stewart  
Cigarette Development/Gauvin/Meyer

A smoking article in which a tube of noncombustible, heat fusible material is surrounded by tobacco filler and wrapper. The tube extends from approximately 5 mm from the mouth end of the filter to within approximately 10 mm of the tobacco, end by directing essentially unfiltered, undiluted smoke to the smoker during the initial puffs gives the impression of a stronger flavored cigarette. After the first several puffs, the tube is melted shut and normal dilution occurs.

Blish

- 9-14-81 Filed in PTO; assignment recorded.  
12-19-81 Prior art statement.  
10-18-82 Action rejecting claims 1 and 4-6 and objecting to 2-3 (response due 18 January).  
1-24-83 Amendment.  
3-10-83 Notice of allowance (base issue fee due 10 June).  
6-13-83 Petition to delay issuance, supplemental art statement, issue fee paid.  
9-15-83 PTO notice: withdrawn from issue to permit reopening of prosecution based on newly discovered art.

Corresponding foreign applications/patents in: Australia, Canada, and EPO designating Belgium, France, Germany, Netherlands, Switzerland, and UK.

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1000082788

307602 PM 1045/THERMOPHILIC DENITRIFICATION OF TOBACCO

V. Malik, B. Semp (Park 500), H. Bravo, and D. Teng  
Biomaterials/Whidby/Farone

High temperature processes and thermophilic organisms for use in those processes for reducing the levels of certain nitrogen-containing compounds in tobacco materials. Tobacco materials are contacted with at least one thermophilic organism characterized by an anaerobic, dissimilatory, metabolic pathway for denitrification of tobacco materials under anaerobic and high temperature conditions that promote such metabolism. Tobacco materials treated in accordance with these high temperature processes and thermophilic organisms, when incorporated into a smoking product, deliver a significantly reduced amount of oxide of nitrogen in smoke. Moreover, such tobacco materials also afford the product of other tobacco products having lower amounts of nitrates and other nitrogen-containing compounds.

Gregory/F&N/Pierri

10-1-81 Filed in PTO with preliminary amendment; assignment recorded.  
9-24-82 Preliminary amendment.  
8-26-83 Status inquiry.  
11-3-83 Action rejecting all claims (response due 3 February).

Corresponding foreign applications/patents in: Argentina, Australia, Canada, Philippines, Venezuela, PCT designating Brazil and Japan, and EPO designating Belgium, France, Germany, Italy, Netherlands, Switzerland, and UK.

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1000082789

307973 PM 999/VARIABLE DILUTION FILTER

J. Adams  
Engineering/Tew/Hayward/Kay/Taylor

A smoking article having a filter mouthpiece with a first stage filter element and a second stage filter element. The first stage filter element is rigidly attached to the tipping paper. The second stage filter element is free to move longitudinally in the mouthpiece and may be made to move axially by tapping the cigarette, thus, covering some of the ventilation holes and changing the smoke to air ratio and the flavor.

Blsh

- 10-2-81 Filed in PTO; assignment recorded.  
1-26-82 Prior art statement.  
3-9-83 Action rejecting all claims (response due 9 June).  
6-6-83 Amendment.  
9-16-83 Notice of allowance (base issue fee due 16 December).  
12-9-83 Base issue fee paid.

No corresponding foreign applications/patents.

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312014 PM 854/METHOD AND APPARATUS FOR SEPARATING TOBACCO MIXTURE INTO LIGHTER AND HEAVIER FRACTIONS

R. Thatcher, H. Odom, R. Edwards  
Engineering/Tew/Kay/Taylor

A tobacco mixture containing lighter and heavier fractions is fed into one side of a housing while an airstream flow is introduced at the other side of the housing and in an upwardly directed flow course so as to cause it to entrain the lighter fraction of the mixture therein, with the heavier fraction falling to the bottom of the housing. A suction lift is maintained at the top of the housing to increase the velocity of the lighter fraction containing air flow outwardly from the housing. The lighter fraction containing air flow is then delivered to a tangential separator unit to recover the lighter fraction. The lighter fraction can, for example, by the laminae material from which cigarette tobacco filler is made.

- Sarofeen/F&N/Diana
- 10-16-81 Filed in PTO; assignment recorded.  
3-1-83 Action rejecting all claims (response due 1 June).  
7-1-83 Amendment with extension.  
7-22-83 Supplemental amendment.  
10-26-83 Action rejecting claims 2-3, 6-7, 9-10, 13-16 and objecting to 8, 11-12 (response due 26 January).

Corresponding foreign applications/patents in: Australia, Canada, and EPO designating Germany, Switzerland, and UK.

1000082290

315449 PM 814 CIP/PROCESS FOR EXPANSION OF TOBACCO

R. de la Burde, F. Utsch, and P. Aument  
Tobacco Materials/Knudson/Turano

A process for increasing the filling power of tobacco by expanding cut tobacco, cut filler or the like by means of overwetting said tobacco and allowing moisture to penetrate the cellular structure of said tobacco such that the moisture content of said tobacco is above that which is normally encountered in tobacco processing. The overwetted, moisture-laden tobacco is thereafter rapidly dried in a turbulent steam atmosphere to a moisture content significantly below moisture levels which are normally encountered in tobacco processing. The tobacco is then remoisturized to a conventional moisture content for further processing.

Inskeep/F&N/Shaw

- 5-1-80 Filed in PTO; assignment recorded.  
3-5-81 Action rejecting all claims.  
4-30-81 Change in power of attorney.  
5-21-81 Change in power accepted.  
6-1-81 Amendment.  
8-12-81 Allowed (base fee due 12 November).  
8-20-81 File to F&N for review along with associate power of attorney; will be refiled.  
10-6-81 Foreign filing license requested.  
10-27-81 SN 145824 abandoned and CIP filed in PTO; assignment recorded.  
3-17-82 Prior art statement  
3-29-82 Supplemental art statement.  
10-14-82 Supplemental art statement.  
1-12-83 Letter re U.S. 3734104.  
3-8-83 Action rejecting all claims (response due 8 June).  
6-8-83 Amendment.  
6-23-83 Third supplemental art statement.  
7-6-83 Letter transmitting PCT WO 83/00989 to PTO.  
12-15-83 Final rejection (response due 15 March).

Corresponding foreign applications/patents in: Argentina, Brazil, Nigeria, Philippines, Venezuela, and EPO designating Belgium, France, Italy, Netherlands, and UK.

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10000082791

328807 PM 822 CIP/CUTTING CIGARETTE TIPPING AT HIGH SPEED

A. Gillespie  
Engineering/Kay/Taylor

A method is disclosed of making a cork drum for high speed cigarette making machinery of the type in which the cork drum is run hot to accelerate the setting of the tipping glue. According to the invention, the cork drum is preferably heated to operating temperature and machined to the desired shape while hot. This provides a drum surface that is true to desired form at operating temperature. The cork knives are preferably ground with a slightly concave edge.

Sarofeen/F&N/Diana

- 9-11-78 Filed in PTO; assignment recorded.  
6-20-79 Restriction requirement.  
6-27-79 Response to restriction requirement; group II claims elected.  
9-24-79 Action rejecting all claims.  
12-26-79 Amendment.  
3-10-80 Final rejection.  
5-28-80 Associate power of attorney for WLKT.  
7-30-80 Appeal brief.  
10-16-80 Notice of Allowance (fee due 1-16).  
Comments on statement of reasons for allowance and citation of prior art.  
1-19-81 Base issue fee paid.  
5-19-81 Notice from PTO—withdrawn from issue.  
12-9-81 CIP of SN 941497 filed in PTO; assignment recorded.  
6-16-82 Status inquiry on SN 941497; associate power of attorney for F&N.  
7-14-82 SN 941497 abandoned for previously filed CIP.  
8-16-83 Status inquiry.  
12-5-83 Election requirement (response due 4 January).

Foreign applications/patents corresponding to parent (SN 941497) in: Italy, PCT designating Brazil and EPO designating Germany, Netherlands, Switzerland, and UK.

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1000082792

**333829** PM 879/FLAVORANTS FOR SMOKING COMPOSITIONS

B. Semp (Park 500), J. Swain, and D. Wu  
Flavor Development/Daylor/Meyer  
Consumer Evaluation/Rowe/Farone

This invention provides a cooked flavorant product which is adapted for incorporated into smoking compositions. The flavorant is produced by a process which involves the condensation of single cell protein hydrolysate and a reducing sugar.

Inskeep/D&O

12-23-81 Filed in PTO; assignment recorded.  
11-3-83 Action rejection all claims and requiring restriction (response due 3 February).  
12-13-83 Response electing Group I (claims 1-16, 19, 20).

Corresponding foreign applications/patents in: PCT designating Brazil, and EPO designating Belgium, France, Germany, Italy, Netherlands, Switzerland, and UK.

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**336146** PM 1090/ARTICLE DETECTOR SYSTEM

J. Gray and C. Goodwin  
Engineering/Hayward/Taylor/Kay

A presence detector employing reflected, focused infrared light to monitor the presence of articles passing thereby.

**Abandoned** Schardt

12-31-81 Filed in PTO; assignment recorded.  
8-24-83 Action rejecting all claims (response due 24 November).  
12-8-83 Letter of abandonment.

No corresponding foreign applications/patents.

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1000082793

338846 PM 1001 CIP/METHOD AND APPARATUS FOR PRODUCTION OF SMOKE FILTER COMPONENTS

J. Wheless  
Engineering/Tew/Taylor/Kay

A method is disclosed according to which a cylindrical object, such as a rod of smoke filter material, is pressed against a heated former element to form a permanent impression in one portion of the object as the former element and the object are simultaneously moved along an arcuate path. The object is then disengaged from the first former element, and pressed against a second heated former element to form a permanent impression in another portion thereof as the second former element and the object are moved along a second arcuate path, which may be an extension of the first, or not. Apparatus is disclosed, in one preferred embodiment of which the first and second former elements are disposed on the periphery of respective drums in such a manner that as the drums rotate in opposite directions, the object is transferred from the first to the second former element as the two former elements pass each other. In another embodiment, the first and second former elements are disposed on the periphery of a single drum, and a roller block adjacent the drum disengages the object from the first former element and rolls it along the drum periphery to the second.

See also pending SN 307115

Sarofeen/F&N/Diana

1-12-82 Filed in PTO; assignment recorded.  
5-12-83 Action allowing 18-22, rejecting 1 and 3, and objecting to 2, 4, 5-16  
(response due 12 August).  
8-8-83 Amendment.

Corresponding foreign applications/patents claiming priority of this and SN 338846 in: Argentina, Australia, Canada, Mexico, Philippines, Venezuela, PCT designating Brazil, Finland, and Japan, and EPO designating Belgium, France, Germany, Italy, Netherlands, Switzerland, and UK.

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10000822794

340399 PM 1025/TOBACCO EXTRACTOR

H. Friedrich, C. Ruf, and J. Brosy  
FTR

A tobacco extractor for extracting liquid and soluble constituents from cut, small plants or tobacco is disclosed. The extractor consists of a worm conveyor for conveying the tobacco through a V-shaped conduit while the wash liquid passes through the conduit in an opposite direction.

Blish

1-18-82 Filed in PTO.  
3-22-82 Assignment recorded.  
4-28-82 Prior art statement.  
10-25-82 Supplemental art statement.  
1-10-83 Action rejecting Claims 1-3 (response due 4-10).  
2-2-83 Amendment.  
4-19-83 Notice of allowance (base issue fee due 19 July).  
7-8-83 Amendment under 37 CFR 1.312.  
7-15-83 Base issue fee paid.

Corresponding foreign applications/patents in: Germany and EPO designating Belgium, France, Italy, Netherlands, Switzerland, and UK.

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1000082795

343021 PM 784 Cont./MOISTURE CONTROL AT A CIGARETTE MAKER

J. Osmalov  
Development Engineering/Mutter/Turano

The moisture content of the cigarette rod of a cigarette maker is controlled by sensing the rod moisture content and utilizing the sensed moisture content to adjust the moisture content of the input tobacco to the maker.

Sarofeen/F&N/Diana

- 1-14-80 Filed in PTO; assignment recorded.  
11-7-80 Action rejecting all claims.  
2-6-81 Request for 1-month extension. Approved.  
3-6-81 Amendment.  
4-30-81 Change in power of attorney.  
5-20-81 Change in power accepted.  
6-10-81 Action rejecting all claims (response due 10 September)—to F&N.  
8-14-81 Associate power of attorney for F&N.  
9-10-81 Request for 1-month extension. Approved.  
10-7-81 Amendment.  
12-16-81 Final rejection (response due 16 March)—to F&N.  
1-27-82 Continuation of SN 111521 filed in PTO.  
3-9-82 Request for 1-month extension to respond to final rejection in SN 111521.  
4-15-82 Notice of appeal in SN 111521.  
6-3-82 Disclosure of pertinent documents in SN 343021.  
6-28-82 SN 111521 abandoned for previously filed Cont.  
3-9-83 Action rejecting claims 1-18 and 21-23 and objecting to 16-20 (response due 9 June).  
6-9-83 Amendment.  
11-3-83 Action allowing all claims (response due 3 January).

Foreign applications/patents corresponding to parent (SN 111521) in: Canada, and EPO designating Germany, Italy, Switzerland, and UK.

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1000082796

346808 PM 1008/CIGARETTE DETECTION AND REJECTION DEVICE

R. Ripley and R. Knight  
Engineering/Tew/Hayward/Kay/Taylor

A cigarette testing device detects improperly filled or missing cigarettes in groups of cigarettes in a cigarette packing machine. Tappets are positioned against the ends of cigarettes and the position of the tappets is determined by optical sensors. Defective cigarettes are removed from the group by nozzles. One to one correspondence between cigarettes, tappets, sensors, and nozzle ejectors allows single defective cigarettes to be rejected without rejecting the entire group of cigarettes.

Blish  
2-8-82 Filed in PTO; assignment recorded.  
6-23-82 Prior art statement.  
7-11-83 Action rejecting all claims (response due 11 October).  
9-29-83 Amendment.  
11-30-83 Notice of allowance (base issue fee due 29 February).

Corresponding foreign applications/patents in: Australia, Canada, and EPO designating Belgium, France, Germany, Italy, Netherlands, Switzerland, and UK.

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348571 PM 1033/ROD-LIKE SMOKING ARTICLE WITH SECONDARY AIR CHANNELS AND APPARATUS FOR PRODUCING SUCH AN ARTICLE

A. Frattolillo  
FTR

A rod-like, smoking article with a rod-like mouthpiece core at the mouth end of a tobacco rod, the entire periphery of said mouthpiece core being enveloped by an adhered wrapping paper which is suitable for contact with the lips and which overlappingly follows a covering paper surrounding the tobacco rod and with secondary air channels covered by the wrapping paper on the periphery of the mouthpiece core and an apparatus for producing such an article.

Gregory  
2-12-82 Filed in PTO; assignment recorded.  
8-8-83 Action—claims 1-13 subject to restriction or election requirement.  
8-16-83 Request for correction of defective office action.  
8-30-83 New action issued (response due 29 September).  
9-9-83 Group I, claims 1-6, elected.  
10-26-83 Action rejecting all claims (response due 26 January).

Corresponding foreign applications/patents in: Germany, Finland, and EPO designating Belgium, France, Germany, Netherlands, Switzerland, and UK.

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1000082797

348572 PM 1034/APPARATUS FOR STAMPING OPEN CHANNELS IN THE PERIPHERY OF FILTER PORTIONS

M. Lauenstein, and E. Beattig  
FTR

An apparatus for impressing open channels into the periphery of rod-like peripherally thermally deformable filter portions for smoking articles. The apparatus includes a pair of trough conveyors each being rotatable in a rotary manner and each including a corresponding plurality of troughs capable of receiving a filter portion and including heat stamping die means. The conveyors are arranged in mutual parallel alignment over a portion thereof to form trough pairs therebetween to form-close an inserted filter portion therebetween.

Gregory  
2-12-82 Filed in PTO; assignment recorded.  
6-25-82 Preliminary amendment.  
10-4-83 Action rejecting all claims (response due 4 January).

Corresponding foreign applications/patents in: Germany, Finland, and EPO designating Belgium, France, Netherlands, Sweden, Switzerland, and UK.

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348573 PM 1035/ROD-LIKE SMOKING ARTICLE AND APPARATUS FOR MAKING

M. Lauenstein and H. Jordi  
FTR

In a filter cigarette, channels for secondary or dilution air are formed by slits in an intermediate sheet interposed between the filter rod and the tipping paper. Perforations in the tipping paper communicate with the channels. The intermediate sheet may be of paper and between one tenth and six tenths of a millimeter in thickness, and preferably surrounds the filter rod without an overlap and leaves a tolerance gap between itself and the tobacco rod.

Gregory  
2-12-82 Filed in PTO; assignment recorded.  
8-8-83 Action—claims 1-10 subject to restriction or election requirement.  
8-16-83 Group I, claims 1-7, elected.  
10-21-83 Action rejecting all claims (response due 21 January).

Corresponding foreign applications/patents in: Germany, Finland, and EPO designating Belgium, France, Germany, Netherlands, Switzerland, and UK.

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1000082798

349659 PM 984/STATIONARY BEAM SPLITTER

P. Martin and E. Stultz (Louisville)  
Physical Research/LaRoy/Farone

A wholly reflective beam splitter for splitting a light beam into a plurality of beams is disclosed. The beam splitter comprises two or more reflective facets so disposed relative to each other as to intercept different spatial portions of the cross-section of an incident light beam and to direct each portion toward a different target area. In one preferred embodiment, the facets lie in parallel, spaced-apart planes defined by a step-like surface of a solid body, and in use are oriented in such a manner relative to an incident beam that all of the energy of the incident beam is reflected by the surface. In another preferred embodiment, the facets are contiguous reflective surfaces of a solid body and are inclined relative to each other to direct the respective portions of an incident beam in different directions.

Abandoned Sarofeen/F&N/Diana

2-27-82 Mailed to PTO; assignment recorded.  
4-7-82 Notice of incomplete application papers (to F&N).  
4-16-82 Response.  
6-23-82 Letter transmitting filing fee.  
6-25-82 Filed in PTO.  
2-16-83 Action rejecting all claims (response due 16 May).  
5-18-83 Amendment.  
7-20-83 Action rejecting all claims (response due 20 October).  
10-20-83 Abandoned.

Corresponding foreign applications/patents in: EPO designating Germany, Netherlands, Switzerland, and UK.

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1000082799

**359342 PM 977/IMPROVED METHOD OF BLENDING RECONSTITUTED TOBACCO IN  
FILLER**

**J. Osmalov and F. Sherwood**  
Development Engineering/Mutter/Turano  
Tobacco Fundamentals/Watson/Turano

Sheet product of a reconstituted tobacco process is cut and shredded separately from other components of a cigarette filler, and is then blended with the shredded strip and the like already dried to making moisture.

Inskeep  
3-18-82 Filed in PTO; assignment recorded.  
6-11-82 Prior art statement.  
7-1-83 Supplemental art statement.  
11-3-83 Action rejecting all claims (response due 3 February).  
11-9-83 Action incomplete; phoned examiner who will issue new action with new response date.

Corresponding foreign applications/patents in: PCT designating Australia

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**366434 PM 991/TOBACCO MASS TREATMENT METHOD**

**J. Davis, Jr. and H. Wilkerson**  
Engineering/Taylor/Kay

A method for quickly conditioning a mass of tobacco uniformly throughout the mass with steam for the purpose of moisturizing and heating the tobacco evenly throughout. A probe is provided to be inserted within the mass of tobacco for drawing a facuum while steam is applied to the tobacco mass. A temperature sensor is mounted on the probe to indicate the temperature of inner mass of tobacco. Steam is applied until a desired temperature is sensed at the sensor. The application of steam is continued at that temperature for a period adequate to moisturize and sterilize the tobacco throughout.

Gregory  
4-7-82 Filed in PTO; assignment recorded.  
10-26-82 Preliminary amendment.  
8-8-83 Action rejecting all claims (response due 8 November).  
11-7-83 Amendment.

Corresponding foreign applications/patents in: Australia

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1000082800

368873 PM 1038/PROCESS FOR INCREASING THE FILLING POWER OF TOBACCO LAMINA FILLER HAVING A LOW INITIAL MOISTURE CONTENT

G. Keritsis and H. Sun  
Tobacco Fundamentals/Watson/Turano  
Analytical/Kuhn/Farone

A process is disclosed for increasing the filling power of tobacco lamina filler having an OV value, immediately before treatment, within the range of from about 1% to about 10%, preferably from about 2% to about 7%, without the use of exogenous impregnants by contacting the filler with a high velocity gaseous medium at elevated temperature such that heat is rapidly and substantially uniformly transferred from the medium to the filler for a total contact time sufficient to stiffen and expand the filler.

Inskeep/F&N/Shaw

4-15-82 Filed in PTO.

8-5-82 Assignment recorded.

4-12-83 Supplemental information disclosure statement.

8-8-83 Action allowing all claims (response due 8 November).

9-12-83 Response and new declaration.

No corresponding foreign applications/patents.

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1000082801

370521 PM 735A Cont. III/METHOD AND APPARATUS FOR THE MANUFACTURE OF  
SELF-SUPPORTING POROUS STRUCTURES

G. Mathe, T. Laszlo, and J. Nienow  
Laboratory Administration/Thomson

In making self-supporting porous elements of type having fibers fused together at points of contiguity thereof, a bonding constituent is selected having microwave absorptivity in excess of that of the fiber material. Filamentary tow defining the fibers is spread and selectively uncrimped and the bonding constituent is applied thereto. The tow is then cylindrically shaped and conducted through a passage in microwave applicator apparatus of type tunable to optimize heating selectively of the bonding constituent whereby such point of contiguity fusion of the fibers is accommodated. Tow issuing from the microwave applicator is subjected to pressurized air.

Sarofeen/F&N/Diana

- 11-19-76 Filed in PTO.  
3-21-77 Action rejecting all claims.  
6-7-77 Request for 1-month extension. Approved.  
7-15-77 Amendment with accompanying declaration.  
10-11-77 Action rejecting all claims.  
1-3-78 Amendment.  
3-27-78 Final rejection.  
5-10-78 Notice of appeal.  
6-28-78 Request for 1-month extension.  
8-4-78 Appeal brief.  
11-78 Examiner's answer sustaining rejection.  
12-12-78 Request for 1-month extension. Approved.  
1-15-79 Reply brief.  
3-9-79 Supplemental examiner's answer sustaining rejection.  
1-22-80 Board of Appeals decision affirming examiner's rejection.  
3-18-80 SN 743511 abandoned and continuation filed in PTO.  
3-4-81 Action rejecting all claims (response due 4 June); to F&N (Schapira) for response.  
4-30-81 Change in power of attorney.  
5-19-81 Change in power accepted.  
5-21-81 Request for 1-month extension.  
6-26-81 SN 131682 abandoned and continuation II filed in PTO along with associate power of attorney for F&N.  
7-20-81 Advisory action.  
12-21-81 Action rejection all claims (response due 20 March)—to F&N.  
4-21-82 SN 277947 abandoned and continuation filed in PTO.  
7-1-83 Preliminary amendment.  
9-16-83 Final rejection (response due 16 December).

No corresponding foreign applications/patents.

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1000082802

**373901 PM 944/SMOKING COMPOSITIONS**

**E. Southwick and H. Grubbs**  
**Chemical Research/Sanders/Osdene**

In one of its embodiments this invention provides a smoking composition which contains a novel type of flavorant additive as exemplified by polymerized ethyl 2-propenyl 2-(2-butyl)malonate.

**Inskeep/D&O**

5-3-82 Filed in PTO; assignment recorded.  
7-29-82 Prior art statement.  
10-11-83 Restriction requirement (response due 10 November).  
11-10-83 Response electing Group I (claims 1-13).

No corresponding foreign applications/patents.

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**1000082803**

377989 PM 893 DIV II/OPTICALLY ACTIVE NICOTINE ANALOGS AND PROCESS FOR THEIR PREPARATION

W. Edwards III  
Chemical Research/Sanders/Osdene

This invention provides a process for the preparation of cotinine and nicotine analogs containing substituents on pyrrolidinone/pyrrolidine ring at the 3' position of cotinine and at the 4' and 5' position of nicotine.

Inskeep/D&O

5-13-82 Filed in PTO.  
4-7-83 Action rejecting all claims (response due 7 July).  
9-27-83 Amendment, declaration, request for extension.  
11-23-83 Final rejection allowing claims 48-55 and rejecting 40-47 (response due 23 February).

No corresponding foreign applications/patents.

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377990 PM 893 DIV I/OPTICALLY ACTIVE NICOTINE ANALOGS AND PROCESS FOR THEIR PREPARATION

W. Edwards III  
Chemical Research/Sanders/Osdene

This invention provides a process for the preparation of cotinine and nicotine analogs containing substituents on pyrrolidinone/pyrrolidine ring at the 3' position of cotinine and at the 4' and 5' position of nicotine.

Inskeep/D&O

5-13-82 Filed in PTO with preliminary amendment.  
3-31-83 Action rejecting all claims (response due 31 June).  
7-26-83 Amendment, declaration, and extension.  
10-4-83 Final rejection (response due 4 January).  
11-8-83 Amendment.  
11-25-83 Notice of allowance (base issue fee due 25 February).

No corresponding foreign applications/patents.

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1000082804

379556 PM 990/PROCESS FOR MAKING NON-COMBUSTIBLE CARBONIZED MATERIAL AND CARBON FILTER MADE OF SUCH MATERIAL

N. Rainer and C. McClung  
Tobacco Fundamentals/Watson/Turano  
Biomaterials Science/Whidby/Farone

A process is provided for making non-combustible carbonized material, and carbon filters made of such material, according to which porous cellulosic material is contacted with a film-forming aqueous solution of an inorganic salt selected from the group consisting of alkali metal and ammonium silicates, carbonates, hydrophosphites, diphosphites, phosphites, hypophosphates, orthophosphates, diphosphates, triphosphates, polymetaphosphates, peroxymonophosphates, peroxydiphosphates, orthoborates, metaborates, tetraborates and mixtures thereof so that the cellulosic material contains at least about 1%, preferably from about 2% to about 6%, of the salt on a dry weight basis and then pyrolyzing the treated cellulosic material in an inert atmosphere at a temperature of at least about 700°C., preferably from about 750°C. to about 900°C., under conditions such that at least about 15%, preferably from about 20% to about 40% of the initial weight of the cellulosic material remains after pyrolysis.

Related to 955.

Blish/F&N/Shaw

5-18-82 Filed in PTO with preliminary amendment.  
8-5-82 Assignment recorded.  
10-19-82 Prior art statement.  
8-10-83 Status inquiry.  
11-3-83 Election requirement.  
12-2-83 Response electing claims 9-16.

No corresponding foreign applications/patents.

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1000082805

395473 PM 1039/PROCESS FOR INCREASING THE FILLING POWER OF TOBACCO

J. Banyasz, C. Owens, E. Mooz, A. Lilly, P. Martin, H. Merritt, and B. Semp  
(Park 500)

Biomaterials/Whidby/Farone  
Physical Research/LaRoy/Farone  
Process Development/Turano

The present invention relates to a process for increasing the filling power of tobacco which comprises heating the tobacco at elevated temperature while maintaining the OV and SV values of the tobacco substantially constant. Preferably, the tobacco is heated at a temperature of at least about 80°C in a closed system for a time sufficient to increase the CV value of the tobacco.

Inskeep/F&N/Shaw

7-6-82 Filed in PTO.

10-5-82 Assignment recorded.

11-2-82 Preliminary amendment and prior art statement.

1-7-83 Letter re incorrect document dates on notice of recordation.

6-28-83 Second preliminary amendment.

8-10-83 Status inquiry.

No corresponding foreign applications/patents.

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400776 PM 991 DIV/TOBACCO MASS APPARATUS

J. Davis and H. Wilkerson  
Engineering/Kay/Taylor

Apparatus for quickly conditioning a mass of tobacco uniformly throughout the mass with steam for the purpose of moisturizing and heating the tobacco evenly throughout.

Gregory

7-22-82 Filed in PTO; assignment recorded.

No corresponding foreign applications/patents.

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1000082806

**401380** PM 1096/CIGARETTE

W. Houck, R. Newsome, W. Nichols, and R. Thesing  
Cigarette Development/Gauvin/Meyer

A cigarette is provided which comprises a tobacco rod, and an integral axially aligned substantially cylindrical assembly at the mouth end of the cigarette which preferably includes a wrapped cylindrical filter plug and tipping paper, and which is provided with means to adjust the air dilution value of the cigarette. The assembly has first and second ends, which are open to permit the passage of air and smoke, and at least two openings in addition to the open ends. Means are provided for rotating one opening relative to the other so that the openings are in varying degrees of registry to permit varying amounts of air to combine with and dilute the smoke.

Sarofeen/F&N/Shaw

7-23-82 Filed in PTO; assignment recorded.  
12-14-82 Preliminary amendment and prior art statement.  
8-3-83 Supplemental information disclosure statement.  
8-10-83 Status inquiry.  
11-28-83 Examiner called to say he would be issuing a restriction requirement; we indicated we would provisionally elect claims 1-7 and 10.

Corresponding foreign applications/patents in: Australia, Canada, PCT designating Brazil and Japan, and EPO designating Austria, Belgium, France, Italy, Sweden, Germany, Netherlands, Switzerland, and UK

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**404349** PM 857/LENS MOUNT

E. Grollimund  
Engineering/Kay/Taylor

A precisely-adjustable lens mount is disclosed, comprising a lens holder having threads on a portion of its surface and a support for the lens holder, having a threaded portion threadedly engaging the lens holder threads. The threaded portion of either the lens holder or the support includes at least a portion that is resilient in a direction away from the threaded portion of the other, to allow the threads of the support and of the lens holder to engage each other with preloading to prevent the lens from shifting from its desired location.

Sarofeen/F&N/Diana  
7-30-82 Filed in PTO; assignment recorded.

No corresponding foreign applications/patents.

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1000082807

**404784 PM 954/CIGARETTE MAKING WITH TEMPERATURE CONDITIONING**

J. Remington

A method and apparatus for producing a tobacco rod of predictable characteristics whereby the tobacco filler is tempered prior to forming into a rod in a cigarette making apparatus. The tobacco filler is tempered prior to entry into the maker region to a temperature of between 32 to 180°F. Heat exchange coils are provided in a feed chamber wherein the tobacco filler is recirculated for tempering to desired temperature prior to being fed to the maker on a continuous basis.

Sarofeen

8-3-82 Filed in PTO; assignment recorded.

No corresponding foreign applications/patents.

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**410195 PM 1010/HEATED DIE FOR CARBONIZED MATERIAL**

D. Full

Biomaterials/Whidby/Farone

A heated die is divided into four segments slidable with respect to adjacent segments so that when opposing segments move together and forward, other segments are moving out and back. Thus, friable material may be formed and drawn through the dye by the action of the dye.

Blish

8-23-82 Filed in PTO; assignment recorded.

1-3-83 Prior art statement.

10-19-83 Action rejecting all claims (response due 19 January).

No corresponding foreign applications/patents.

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1000082808

**410205 PM 894/1,4-DIACYLPiperazine FLAVORED SMOKING COMPOSITIONS**

**W. Edwards and Y. Houminer**  
Chemical Research/Sanders/Osdene

This invention provides smoking compositions which contain a diacylpiperazine additive such as 1,4-(2-methyl-propionyl)-2,3,5,6-tetramethylpiperazine. The preferred diacylpiperazine additives impart enhanced flavor response and smoothness.

Inskeep/D&O  
8-23-82 Filed in PTO; assignment recorded.  
11-26-82 Prior art statement.

Corresponding foreign applications/patents in: EPO designating Germany, Netherlands, Switzerland, and UK.

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**415307 PM 1091/TOOL STEEL CORK KNIVES**

**A. Gillespie and A. Pasquine**  
Engineering/Taylor/Kay

A cigarette tipping apparatus having a cork drum cooperating with a cork cutting knife to sever cork tipping paper. The cutting knife is made of a wear-resistant material which is softer than the cutting surface.

**Gregory**  
9-7-82 Filed in PTO; assignment recorded.

No corresponding foreign applications/patents.

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1000082809

416769 PM 913B/CONTINUOUS PROCESS FOR MICROBIAL DEGRADATION OF TOBACCO CONSTITUENTS CONTAINING NITRATES

H. Gaisch and D. Schulthess  
FTR

Microbial degradation of nitrates in a tobacco extract takes place in a first fermenter under exponential growth condition of the micro-organisms employed and subsequently in a second fermenter under stationary conditions of life of the degrading micro-organisms. In the first fermenter, carbohydrates are added, whilst in the second fermenter the depot carbohydrates which the micro-organisms have stored in the first fermenter are utilised.

Inskeep/F&N/Haley  
9-9-82 Filed in PTO; assignment recorded.  
11-5-82 Priority document submitted.  
11-17-82 Letter to PTO re declaration.

Corresponding foreign applications/patents in: Australia, Canada, Germany, and EPO designating Belgium, France, Germany, Italy, Netherlands, Switzerland, and UK.

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417271 PM 1095/SMOKING COMPOSITIONS

W. Chan  
Chemical Research/Sanders/Osdene

A non-volatile source of ketone to flavor tobacco smoke is provided by a beta-ketocarboxylic acid ester of a sugar or related compound. The ester is applied to the smoking material and remains in place until the burning coal releases the ketone.

Inskeep  
9-13-82 Filed in PTO; assignment recorded.  
12-28-82 Prior art statement.

Corresponding foreign applications/patents in: Australia, Canada, and EPO designating France, Germany, Switzerland, and UK.

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1000082810

421922 PM 1080/SMOKING COMPOSITIONS CONTAINING NOVEL ACYLPYRAZINE FLAVORANTS

D. Williams, E. Southwick, and Y. Houminer  
Chemical Research/Sanders/Osdene

In one of its embodiments the present invention provides a smoking composition which contains a novel type of bicyclic acylpyrazine flavorant additive as exemplified by 2-acetyl-5,6,7,8-tetrahydroxyclohexa,b.pyrazine.

Inskeep/D&O  
9-23-82 Filed in PTO; assignment recorded.  
1-31-83 Prior art statement.

Corresponding foreign applications/patents in: Australia.

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423070 PM 1042/A SELF-CLEANING POROSIMETER

E. Grollimund, W. Smick, D. Brookman  
Engineering/Taylor/Kay

A high-speed dynamic porosimeter including a device for removing accumulated dust is disclosed. The porosimeter has an apertured surface, preferably curved, across which a web whose porosity is to be measured is drawn while suction is applied to the apertures. A pressure transducer monitors the pressure in a sensor line or chamber, which pressure varies as a function of the porosity of the web. A scraper blade scrapes dust from the apertured surface from time to time. Preferably, vacuum suction is also applied to a slot at the upstream side of the apertured surface to ensure a good seal between the web and the surface.

Sarofeen/F&N/Diana  
9-24-82 Filed in PTO; assignment recorded.

No corresponding foreign applications/patents.

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1000082811

**424815 PM 992/MECHANICAL DECHOKER DEVICE**

J. Gregory III  
Engineering/Taylor/Kay

Tobacco traveling upward in a chimney is decelerated prior to striking a suction belt in order to prevent breakage by diverting part of the air flow through a screen. Periodic chokes in the screen are cleared by mechanically rotating the dechoker device 90° counter-clockwise so that the air flow which is normally diverted through the dechoker device flows through the screen in the opposite direction, clearing the screen of tobacco.

Blish

9-27-82 Mailed to PTO; assignment recorded.  
11-16-82 Notice of incomplete papers.  
11-22-82 Response, this is filing date.  
3-11-83 Prior art statement.

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**429354 PM 1111/FILTER CIGARETTE**

W. Nichols and R. Newsome  
Cigarette Development/Gauvin/Meyer

A filter cigarette is provided which comprises a tobacco rod, an integral, axially aligned substantially cylindrical wrapped filter plug at the mouth end of the tobacco rod, and tipping paper surrounding the filter plug. The filter plug has first and second ends, which are open to permit the passage of air and smoke. The plug wrap is divided into a mouth-end band, a central band, and a rod-end band having an opening therethrough. The first and third bands are attached to the filter. The tipping paper circumscribes the filter plug and extends from the mouth end of the filter plug to a position on the tobacco rod adjacent to the rod end of the filter plug. The tipping paper is divided into first and second bands, the first band extending from the mouth end to a position adjacent the tobacco rod overlying the third band of the plug wrap. The second band of the tipping paper abuts the first band of the tipping paper and overlaps and attaches the rod end of the filter to the abutting end of the tobacco rod. The first band of the tipping paper has an opening therein which is positioned in registry with an opening in the third band of the plug wrap. The first band of the tipping paper is attached to the plug wrap only at the central band for rotation therewith about the longitudinal axis of the filter, whereby the opening in the tipping paper is rotated into varying degrees of registry with the opening in the underlying plug wrap to permit varying amounts of air to combine with the smoke, thereby varying the air dilution value of the cigarette.

Sarofeen/F&N/Shaw  
9-30-82 Filed in PTO; assignment recorded.  
4-19-83 Preliminary amendment.  
4-25-83 Prior art statement.  
8-3-83 Supplemental information disclosure statement.

Combined with PM 1096, SN 401380 for foreign filing.

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1000082812

429391 PM 1094/SHORT CYCLONE SEPARATOR

R. Gaudlitz  
Tobacco Processing and Fabrication/Burns/Turano

A short cyclone separator utilizing a ramped inlet passageway into the separation chamber to eliminate the recirculating stream in the top portion of the inlet section which otherwise develops and a baffle positioned across the separation chamber to shorten the separation chamber and to create an annular gap between the edge of the baffle and the chamber wall. The mixed stream enters the chamber via the helical inlet and the denser component slides along the chamber wall through the annular gap while the lighter component is deflected by means of the baffle upward through the centrally disposed discharge provided therefor. Vertical vanes radially disposed about a central hub positioned below the baffle direct conditioning gas radially out and up through the annulus generally countercurrent to the flow of the heavier component to thereby cool and decelerate the heavier component.

Gregory

9-30-82 Filed in PTO; assignment recorded.  
7-28-83 Action rejecting all claims (response due 28 October).  
8-10-83 Request for correction of defective office action.  
8-17-83 Action rejecting all claims (response due 17 November).  
11-9-83 Amendment.

No corresponding foreign applications/patents.

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1000082813

**429392 PM 1110/ADJUSTABLE FILTER CIGARETTE**

W. Nichols and R. Newsome  
Cigarette Development/Gauvin/Meyer

A filter cigarette is provided which comprises a tobacco rod which includes a charge of tobacco wrapped in cigarette paper, an integral, axially aligned cylindrical filter plug, and tipping paper. The filter plug is divided into first and second segments with the first segment being rotatable with respect to the second segment. Rotation of the first segment with respect to the second segment, in one embodiment of the invention, serves to vary the air dilution value of the cigarette. In another embodiment, rotation of the first segment with respect to the second segment produces variable resistance-to-draw in the cigarette. Both of the above embodiments can be combined into yet another embodiment to produce a cigarette which maintains a constant resistance-to-draw value as the air dilution value is varied. In yet another embodiment, an encapsulated flavorant is provided which is released responsive to rotation of the first segment with respect to the second segment. The flavorant release embodiment can be combined with the other embodiments.

Sarofeen/F&N/Shaw

9-30-82 Filed in PTO; assignment recorded.  
4-19-83 Preliminary amendment.  
4-25-83 Prior art statement.  
5-3-83 Second preliminary amendment and declaration.  
8-3-83 Supplemental information disclosure statement.

Corresponding foreign applications/patents in: Australia, Canada, PCT designating Brazil and Japan, and EPO designating Austria, Belgium, France, Italy, Sweden, Germany, Netherlands, Switzerland, and UK

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1000082814

429393 PM 1126/FILTER CIGARETTE

W. Nichols, R. Newsome, W. Geiszler  
Cigarette Development/Gauvin/Meyer

A filter cigarette is provided which has a wrapped filter plug aligned to end-to-end abutting relationship with a substantially cylindrical tobacco rod. The filter plug and tobacco rod are circumscribed and joined by a substantially air permeable first layer of tipping paper. Circumscribing the first layer of tipping paper is a second layer of substantially air impermeable tipping paper. The second layer has a circumferentially extending rod of closely spaced perforations intermediate the two ends of the second layer which divides it into a mouth-end sleeve attached to the first layer at the mouth end of the cigarette and a second rod-end sleeve detachable from the mouth end sleeve by rotating the sleeve relative to the first sleeve so that it can move axially between the mouth-end sleeve and positions along the tobacco rod allowing air to enter the filter through the exposed portions of the air permeable layers.

Sarofeen/F&N/Shaw

9-30-82 Filed in PTO; assignment recorded.  
4-6-83 Formal drawings submitted.  
4-25-83 Prior art statement.  
8-3-83 Supplemental information disclosure statement.

Combined with PM 1096, SN 401380, for foreign filing.

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1000082815

**429394 PM 1125/FILTER CIGARETTE**

W. Houck, W. Nichols, and R. Newsome  
Cigarette Development/Gauvin/Meyer

A filter cigarette is provided which is adjustable to provide a wide range of air dilution and/or RTD values and which comprises a tobacco rod, a substantially cylindrical filter plug and substantially air impermeable tipping paper. The filter plug comprises a first, mouth-end segment and a second, axially aligned, rod-end segment spaced apart from the first segment. The wrapping, which is substantially air impermeable, circumscribes the first and second segments defining a substantially cylindrical void therebetween which may include means for releasing varying amounts of a flavorant. The first segment is movable towards the second segment thereby compressing the plug wrap between the segments which decreases the volume of the void and increases the RTD value of the cigarette. Variable air dilution is achieved by providing at least one opening in the tipping paper and at least one opening in the underlying plug wrap positioned such that, as the first segment is moved axially towards the second segment, the first and second openings are moved into varying degrees of registry, thereby admitting varying amounts of air to the filter.

Sarofeen/F&N/Shaw

9-30-82 Filed in PTO; assignment recorded.

4-6-83 Formal drawings submitted.

4-25-83 Prior art statement.

8-3-83 Supplemental information disclosure statement.

Corresponding foreign applications/patents in: Australia, Canada, PCT designating Brazil and Japan, and EPO designating Austria, Belgium, France, Italy, Sweden, Germany, Netherlands, Switzerland, and UK

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1000082816

**429406 PM 1104/METHOD AND APPARATUS FOR TESTING PACKAGE SEALS**

P. Martin and W. Gentry  
Physical Research/LaRoy/Farone

A method and apparatus for testing a package overwrap seal. The apparatus includes a means to supply a flow of a fluid such as air into the package, means to indicate the flowrate and pressure of the flow of fluid, means to hold the package without affecting the seals and in one embodiment, means for submerging the package in a second fluid. According to the method, a flowrate of fluid is introduced into the package functions of the pressure and flowrate are detected and compared to empirical data to determine acceptability. Moreover, pressure may be applied to the seal locations to detect, by a change in indicated pressure or flowrate, a leak location. Additionally, the package may be submerged in a second fluid to reveal the leak locations.

Gregory  
9-30-82 Filed in PTO; assignment recorded.

No corresponding foreign applications/patents.

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**437414 PM 1052/POSITIVE PLUG FEED APPARATUS**

M. Barden, W. Pettigrew, A. Collins  
Engineering/Kay/Taylor

A positive plug feed apparatus is disclosed wherein an upper lug belt and lower lug belt form an inclined expanding throat which forces filter plugs into a reservoir. The incline of the throat is such that the filter plugs enter the reservoir along the shear lines of the stacked filter plugs and reservoir thus reducing the force necessary to push new filter plugs into the partially full reservoir.

Blish  
10-28-82 Filed in PTO; assignment recorded.  
3-24-83 Prior art statement.

No corresponding foreign applications/patents.

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10000082817

**439587 PM 998/METHOD FOR CAPTURING AND UTILIZING LASER ENERGY**

E. Grollimund  
Engineering/Kay/Taylor

An apparatus is disclosed for chopping a beam of radiant energy into three or more pulse trains propagating in different directions. The apparatus includes a disc rotating in a plane normal to the incident beam, having a circular pattern of reflective and transmissive portions. The reflective portions include first and second sets of surfaces inclined respectively at first and second oblique angles to the plane of the disc, for reflecting energy in first and second directions.

Sarofeen/F&N/Diana  
11-5-82 Filed in PTO; assignment recorded.

No corresponding foreign applications/patents.

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**439588 PM 1124/FILTER CIGARETTE**

M. Hausermann  
R&D

A filter cigarette is provided which is adjustable to provide a wide range of air dilution values and which comprises a tobacco rod, a wrapped substantially cylindrical filter plug, and air transmissive tipping paper. The filter plug comprises a first mouth-end segment and a second, axially aligned, abutting rod-end segment which are joined such that the first segment is rotatable about the common axis. The second segment abuts and is joined to the tobacco rod. The wrapping is substantially air impermeable and has a plurality of first longitudinally extending, substantially air impermeable depressions spaced about the circumference of the first segment which are registerable with corresponding second, longitudinally extending, substantially air impermeable depressions spaced about the circumference of the second segment, such that as the first segment is rotated relative to the second segment, the degree of registry of the first and second depressions varies, thereby admitting varying amounts of air to the filter.

Sarofeen/F&N/Shaw  
11-5-82 Filed in PTO; assignment recorded.  
4-6-83 Formal drawings submitted.  
4-25-83 Prior art statement.  
8-3-83 Supplemental information disclosure statement.

Combined with PM 1110, SN 429392, for foreign filing.

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1000082818

**440463 PM 1123/TOBACCO BALE STEAM INJECTION**

R. Smith  
Engineering/Kay/Taylor

A method and apparatus for steam injection of tobacco bales for use in the opening process. In the apparatus, at least one orificed steam injection plate is brought in flush contact with a tobacco bale that is stationary or in motion and steam is caused to emit from the orifice and is thereby injected into the bale moistening, conditioning and loosening the bonds between the tobacco leaves. In the method, as the tobacco bale is conveyed past the steam injection orifice plate, the plate is moved in flush contact therewith, steam is supplied to the plate and emits therefrom through the orifices to penetrate the tobacco bale. The bale so conditioned is subsequently broken up by a rotating cylinder.

Gregory  
11-9-82 Filed in PTO, assignment recorded.

No corresponding foreign applications/patents.

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**442471 PM 1122/METHOD AND APPARATUS FOR USING SMALL LAMINA TOBACCO  
IN CIGARETTES**

C. Bates, S. Giddings, A. Roberts, and L. Turano  
Tobacco Product Standards  
Process Development/Turano

A method and apparatus for adding small lamina tobacco to cigarettes is disclosed. The small lamina recovered from the tobacco threshing process is passed through a 4 mesh screen to remove large particles, passed over a 16 mesh screen to remove dust and undersized particles, passed through a separator to remove veins, stems, and fibers, passed over a weighbelt, and then mixed with cut dried filler tobacco.

Blish  
11-17-82 Filed in PTO; assignment recorded.

No corresponding foreign applications/patents.

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1000082819

**450247 PM 1083/PROCESS FOR MAKING A CARBON HEAT SOURCE AND SMOKING ARTICLE INCLUDING THE HEAT SOURCE AND A FLAVOR GENERATOR**

J. Hearn, H. Lanzillotti, and G. Burnett  
Flavor Development/Daylor/Meyer  
Tobacco Fundamentals/Watson/Turano

The present invention relates to a process for producing a tasteless carbon heat source from a preformed article of a ligno-cellulosic material according to which the article is pyrolyzed in a continuously exchanged inert atmosphere at a temperature within the range of from about 800° to about 1100°C, for from about 0.5 to about 3 hours, then cooled in the inert atmosphere at a rate of from about 500° to about 10°C per hour to a temperature within the range of from about 275°C to about 25°C, and then subjected to at least one additional process step selected from an oxygen absorption step, a salt impregnation followed by heat treatment step, and a water desorption step. The present invention also relates to a smoking article including the carbon heat source, and a flavor generator comprising a substrate material containing at least one thermally releasable flavorant.

Gregory/F&N/Shaw  
12-16-82 Filed in PTO; assignment recorded..  
3-7-83 Prior art statement.

Corresponding foreign applications/patents in: EPO designating Germany, Netherlands, Switzerland, and UK.

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**456868 PM 1026 CIP/METHOD OF TOBACCO TREATMENT TO PRODUCE FLAVORS**

H. Gaisch and D. Ghiste  
FTR

A method for producing tobacco flavors which comprises the steps of hydrolytically degrading into amino acids the proteins of biomass produced by the assimilation of low molecular weight nitrogen compounds from an aqueous tobacco extract, isolating the amino acid mixture and converting that mixture into flavors by the use of reducing sugars and heat. The flavors of this invention may be added to smoking products to improve their aroma and taste.

Gregory/F&N/Haley  
1-10-83 Filed with letter re declaration in PTO.  
2-11-83 Letter submitting duplicate application.  
4-1-83 Letter from solicitor re declaration.  
4-25-83 Preliminary amendment and response.

Corresponding foreign applications/patents in: EPO designating Belgium, France, Germany, Italy, Netherlands, Switzerland, and UK.

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1000082820

444928 PM 1092/AIR-CURED BRIGHT TOBACCO FILLER, BLENDS AND SMOKING ARTICLES

D. Teng  
Biomaterials/Whidby/Farone

A novel tobacco for smoking articles which is an air-cured bright tobacco harvested by stalk cutting, priming, or a combination of partial priming followed by stalk cutting, and characterized by a total reducing sugar content within the range of from 0 to about 6%, a chlorogenic acid content within the range of from 0 to about 0.4%, a rutin content within the range of from 0 to about 0.2%, a hot water solubles content within the range of from about 45 to about 55%, a total ash content within the range of from about 12 to about 26%, a combined proline and threonine content within the range of from 0 to about 1 mg/g, a combined aspartic acid and asparagine content within the range of from about 0.5 to about 7 mg/g, and a combined glutamic acid and glutamine content within the range of from about 0.5 to about 1.6 mg/g; all measurements being on a dry weight basis. This novel tobacco, when formulated as a smoking article, such as a cigarette, and smoked, presents the aroma and taste of a blended tobacco smoking article and may be substituted in whole or in part for burley tobacco in blended tobaccos while substantially maintaining the subjective qualities of the burley tobacco and yet, as compared to the burley tobacco-containing blends, provides a reduced NO content in the smoke.

Inskeep/F&N/Shaw  
11-26-82 Filed in PTO; assignment recorded.  
3-8-83 Art statement and preliminary amendment.

Corresponding foreign applications/patents in: Australia and EPO designating Germany, Netherlands, Switzerland, and UK.

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1000082821

457505 PM 653/FOAMED, EXTRUDED, TOBACCO-CONTAINING SMOKING ARTICLE  
AND METHOD OF MAKING SAME

G. Keritsis and W. Nichols  
Tobacco Fundamentals/Watson/Turano

A substantially cylindrical foamed, extruded, tobacco-containing smoking article is provided which has properties substantially equivalent to those of a conventional cigarette and which contains from about 5 to about 98 wt. % of tobacco particles having a particle size of up to about 5 mesh, from 0 to about 60 wt. % of a filler having a particle size of up to about 5 mesh, from about 2 to about 40 wt. % of a cellulosic binder selected from the group consisting of hydroxypropyl cellulose, carboxymethyl cellulose, and its sodium, potassium and ammonium salts, cross-linked carboxymethyl cellulose, and its sodium, potassium, and ammonium salts, hydroxyethyl cellulose, ethyl hydroxyethyl cellulose, hydroxypropyl methyl cellulose, methyl cellulose, ethyl cellulose, and mixtures thereof, and from about 5 to about 20 wt. % water. The article has a density within the range of from about 0.05 to about 1.5 g/cc. The method of making such articles comprises the steps of (a) dry blending from about 5 to about 98 wt. % of the tobacco particles having an OV value of from about 3 to about 20%, with from 0 to about 60 wt. % of a filler and having a particle size of up to about 5 mesh, and from about 5 to about 40 wt. % of the cellulosic binder; then (b) admixing this dry blend with water to form a wet blend containing from about 15 to about 50 wt. % of water; then (c) extruding the wet blend under extrusion conditions of temperature and pressure such that as the wet blend is extruded the moisture in the blend is converted to steam thereby foaming the article.

Related to 641 and 1038; see also 689.

Inskeep/F&N/Shaw

12-30-82 Filed in PTO with preliminary amendment; assignment recorded.

2-28-83 Letter to PTO to correct filing receipt.

11-7-83 Information disclosure statement and second preliminary amendment.

Corresponding foreign applications/patents in: Australia, Canada, and EPO designating France, Germany, Italy, Netherlands, Switzerland, and UK; and PCT designating Brazil.

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1000082822

464484 PM 1027/PROCESS FOR INCREASING THE FILLING POWER OF TOBACCO

N. Rainer and D. Siwiec  
Tobacco Fundamentals/Watson/Turano  
Cigarette Development/Gauvin/Meyer

A process is disclosed for increasing the filling power of tobacco by contacting the tobacco, preferably by dry blending, with at least one basic calcium compound in an amount such that the treated tobacco has a pH of at least about 8, and heating the tobacco in the presence of sufficient moisture to establish and maintain its OV value within the range of from about 14% to about 40% and at a temperature and for a time sufficient to increase the filling power of the tobacco. As an additional first step, the tobacco may be contacted with an acid to achieve a tobacco product of lighter color.

Inskeep/F&N/Hendricks  
2-7-83 Filed in PTO; assignment recorded.  
3-23-83 Prior art statement.

No corresponding foreign applications/patents.

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464607 PM 1128 DES/CIGARETTE PACK MERCHANDISING UNIT

L. Wiese  
Henschel-Steinau/PM Inc.

(Design application.)

Blish/F&N/Shaw  
2-8-83 Filed in PTO; assignment recorded.  
5-10-83 Formal drawings.

No corresponding foreign applications/patents.

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464801 PM 1100/APPARATUS FOR A CIGARETTE PACKAGING MACHINE

M. Juillerat  
FTR

A cigarette packaging inner collar transfer apparatus is disclosed wherein the collar is transferred from a receiving station in a semi-circular arc by means of an inner conveying belt and an outer conveying belt which holds the vertical tab of the collar in a vertical position between the two belts. The collar is removed at the delivery end by turning a station and inserting it in the cigarette pack.

Blish  
2-7-83 Filed in PTO; assignment recorded.  
10-28-83 Information disclosure statement.

Foreign applications/patents corresponding to parent FTR case in: EPO designating Germany, Italy, Switzerland, and UK.

1000082823

**464868 PM 1128/OVERHEAD RETAIL MERCHANDISING UNIT FOR CIGARETTES**

**L. Wiese**  
Henschel-Steinau/PM Inc.

An overhead retail merchandising display for cigarettes is provided. The height of the display is continuously adjustable to the varying heights of store personnel. The display is distinctive and attractive in appearance, while at the same time being simple to construct and operate. It is supported by generally upright posts which preferably telescope so that they can be adjusted to the height requirements of a given installation. For finer adjustment to the height of store personnel, it is provided with a mechanism for raising and lowering it on the upright posts and retaining it in any selected position.

Blish/F&N/Shaw  
2-8-83 Filed with prior art statement in PTO.  
3-24-83 Preliminary amendment.  
5-10-83 Formal drawings.

No corresponding foreign applications/patents.

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**467412 PM 1130/SMOKING COMPOSITIONS CONTAINING A NOVEL MONOACYL-PYRAZINE FLAVORANT**

**Y. Houminer, E. Southwick, and D. Williams**  
Chemical Research/Sanders/Osdene

This invention provides smoking compositions which contain a monoacylpyrazine compound as a flavorant additive. In one of its embodiments, this invention provides tobacco compositions which contain a monoacylpyrazine flavorant additive such as 1-pyrazinyl-2,2-dimethyl-1-propanone. Under cigarette smoking conditions the monoacylpyrazine additive flavors the mainstream smoke and enriches the aroma of the sidestream smoke.

Inskeep/D&O  
2-17-83 Filed in PTO; assignment recorded.  
4-26-83 Prior art statement.

Corresponding foreign applications/patents in: EPO designating Belgium, Germany, Netherlands, Switzerland, and UK.

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1000082824

468176 PM 1088 Cont./SMOKING ARTICLE

G. Burnett, W. Claflin, H. Lanzillotti, A. Lilly Jr., J. Nienow (Q.A.), T. Osdene, A. Wyate

Tobacco Fundamentals/Watson/Turano

Flavor Development/Daylor/Meyer

Applied Research/Farone

Research and Extramural Studies/Osdene

Smoking articles comprising a high density, relatively low porosity coherent mass of combustible tobacco material having at least one passage extending therethrough are disclosed. In a preferred embodiment the smoking article is a cylinder having at least one passage axially therethrough. The smoking article may further comprise a plug of ignitable material in passage blocking position at one end of the passage, said plug being such as to permit puff induced air flow therethrough. At least one additional plug may be similarly disposed at the opposite end of the passage or at an intermediate point in the passage. By adjusting the density, the surface area and/or the porosity of the mass available for combustion, the per puff delivery of tar by the smoking article upon combustion may be controlled.

Blish/F&N/Shaw

2-18-83 Continuation of pending SN 148124 filed with preliminary amendment in PTO.

7-29-83 Supplemental information disclosure statement.

Foreign applications/patents corresponding to parent (SN 148124) in: Argentina, Australia, Brazil, Canada, France, Germany, Italy, Japan, Netherlands, Philippines, Switzerland, UK and Venezuela.

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1000082825

470529 PM 769 Cont. III/METHOD FOR THE MANUFACTURE OF FIBROUS ARTICLES

W. Nichols and D. Laslie  
Cigarette Development/Gauvin/Meyer

In making articles of type having fibers fused together at points of contiguity thereof, a selection is made of a constituent, for application to the fibers, which has microwave absorptivity in excess of that of the fiber material and in which the fiber material is essentially insoluble. In making self-supporting porous elements, such as cigarette filters, filamentary tow defining the fibers is spread and selectively uncrimped and the selected constituent is applied thereto. The tow is then cylindrically shaped and conducted through a passage in microwave applicator apparatus of type tunable to optimize heating selectively of the applied constituent whereby such point of contiguity fusion of the fibers is accommodated. Tow issuing from the microwave applicator is subjected to pressurized air and to recovery of vaporized applied constituent.

Sarofeen/F&N/Diana

9-11-78 Filed in PTO.  
5-7-79 Action rejecting all claims and notice of informal drawings.  
7-23-79 Amendment.  
7-30-81 Submission of formal drawings.  
10-26-79 Action rejecting all claims.  
1-80 Request for 1-month extension. Approved.  
2-25-80 SN 941143 abandoned and continuation filed in PTO.  
9-19-80 Action rejecting all claims.  
1-19-81 SN 124354 abandoned and continuation filed.  
5-19-81 Change in power accepted.  
12-8-81 Status inquiry.  
10-1-82 Final rejection (response due 1 January)--to F&N.  
3-1-83 SN 226255 abandoned and continuation filed.

Foreign applications/patents corresponding to parent (SN 941143) in: Australia, France, Germany, Switzerland, and UK.

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477294 1106/LIQUID DISTRIBUTION DEVICE

J. Brosy  
FTR

The invention provides a liquid distribution device for use in, for example, extraction beds. The device comprises an elongate chamber or hollow arm defined by two plates, a cylinder closed at one end by a wall and opening at the other end into the chamber through one of the plates and a pipe opening tangentially into the cylinder. Liquid enters the cylinder through the pipe, and flows around the side wall of the cylinder and impinges upon the opposed plate of the chamber, where it is spread along the plate and leaves through the slot between inclined portions of the plates.

Gregory  
3-21-83 Filed in PTO; assignment recorded.  
8-30-83 Request for reconsideration of recordation of assignment.

Corresponding foreign applications/patents in: EPO.  
Source: <https://www.industrydocuments.ucsf.edu/docs/lmcj0000>

1000082826

**477295    1101/APPARATUS FOR HANDLING PACKED GOODS**

M. Berger, J. Bernasconi, and M. Juillerat  
FTR

Apparatus for gripping cases of cigarettes from a casing machine and for stacking the cases on a pallet including two fixed and vertical uprights to guide the movements of a bridge which is cantilevered in front of the uprights and which is movable in the vertical direction along these uprights. A suction-cup is rotatable about a vertical axis and is mounted on a carriage movable transversely on a slide which is movable longitudinally on the bridge. The cases of cigarettes are put onto a roller train which moves forward so that each case reaches a presentation position where the suction-cup seizes it. Position sensors detect the presence of a pallet under the bridge and control the movements of the suction-cup so as to distribute the cases in several successive layers on the pallet.

Gregory  
3-21-83    Filed in PTO; assignment recorded.

Corresponding foreign applications/patents in: EPO designating Australia, Belgium, France, Germany, Italy, Luxembourg, Netherlands, Sweden, Switzerland, and UK.

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**477300    1102/DEVICE FOR SUPPLYING A MACHINE WITH RIGID ELEMENTS**

M. Berger, D. Da Silva, and M. Juillerat  
FTR

A device for supplying rod shaped rigid elements to a machine including a hopper having a vertical bottom and two sidewalls and being closed toward the front by an extensible screen and having an upper edge connected to a frame bearing a detector. A drive means keeps the frame at a height corresponding to the level of the top of the stack of elements in the hopper. When a minimum level is reached, the receptacle, having a tray bearing a package containing the filter elements, is tilted back into the hopper by rotation of the shaft and then brought immediately above the level of the stack. Its base is opened by displacement of a shutter. The package is emptied gradually by elevation of the frame and of the means for driving and for guiding the receptacle. The receptacle then returns to its starting position.

Gregory  
3-21-83    Filed in PTO; assignment recorded.

Corresponding foreign applications/patents in: EPO designating Australia, Belgium, France, Germany, Italy, Luxembourg, Netherlands, Sweden, Switzerland, and UK.

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1000082827

480807 PM 1140/METHOD AND APPARATUS FOR TIPPING OVAL SMOKING ARTICLES

J. Wheless, M. Garthaffner, and G. Reid  
Engineering/Tew/Kay/Taylor

A method and apparatus are disclosed for wrapping tipping material about an assembly comprising a tobacco rod and a filter plug both having an oval cross-section. The oval cigarette assembly is rolled along the surface of a rolling drum by means of an adjacent pressure element that is moved in the same direction as, but with a different speed from that of, the peripheral surface of the drum. The difference in speed causes the cigarette assembly to roll along the drum surface. The pressure element, which is preferably a belt, is adapted to exert a substantially constant pressure on the cigarette assembly despite the irregular shape of the latter.

Sarofeen/F&N/Diana  
3-31-83 Filed in PTO; assignment recorded.  
5-24-83 Letter to correct notice of recordation of assignment document.

\* \* \* \* \*

480808 PM 1140 DESIGN/DESIGN FOR A CONTAINER AND CIGARETTES

J. Wheless  
Engineering/Tew/Kay/Taylor

Design for a cigarette pack and configuration of oval cigarettes packed therein.

Sarofeen/F&N/Diana  
3-31-82 Filed in PTO; assignment recorded.  
5-24-83 Letter to correct notice of recordation of assignment document.

Corresponding foreign applications/patents in: Australia, Benelux, Brazil, Canada, France, Germany, Italy, Japan, Switzerland, and UK.

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1000082828

480809 PM 1141/METHOD AND APPARATUS FOR ALIGNING OVAL CIGARETTE  
FILTERS

J. Wheless  
Engineering/Tew/Kay/Taylor

A method and apparatus are disclosed for taking rod-shaped articles of oval cross-section, such as oval filter plugs for cigarettes, from a hopper, with a predetermined spacing between consecutive articles, and for presenting the articles at a destination with a predetermined orientation. A plug drum having flutes shaped to accept a single oval filter plug in any angular orientation is used to remove the filter plug from the hopper. When each filter plug is released from the plug drum, it drops through a guideway preferably defined between two cooperating elements, which permit it to pass through only with a specific orientation. At the discharge end of the guideway is preferably a second drum, which has flutes shaped to accept a filter plug leaving the guideway only in the desired final orientation.

Sarofeen/F&N/Diana  
3-31-83 Filed in PTO; assignment recorded.  
5-24-83 Letter to correct notice of recordation of assignment document.

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481070 PM 1024/A METHOD AND APPARATUS FOR UNIFORMLY CUTTING  
TOBACCO SHEETS

R. Thatcher and J. Tomanovits  
Engineering/Kay/Taylor

A method and apparatus are disclosed for shredding reconstituted and blended leaf sheets, wherein the sheet is first slit longitudinally, and then cut off transversely by means of bringing the points of a serrated blade into contact with the slit sheet at an angle to penetrate the sheet, and then moving the blade to tear off the portion of the sheet between the point of penetration and the end of the sheet. This produces much more uniform shreds, with less dust and shattering, than has hitherto been possible.

Sarofeen/F&N/Diana  
3-31-83 Filed in PTO.  
12-15-83 Prior art statement.

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1000082829

**482100** 1127/IMPROVED SMOKING COMPOSITIONS

K. Podraza and Y. Houminer  
Chemical Research/Sanders/Osdene

This invention provides smoking compositions which contain a monocarbonate ester compound as a flavorant additive. In one of its embodiments, this invention provides tobacco compositions which contain a monocarbonate ester flavorant additive such as 1-phenoxycarbonylosy-3-propanol. Under cigarette smoking conditions this monocarbonate ester pyrolyzes into phenol and other products which flavor the mainstream and sidestream smoke.

Inskeep/D&O  
4-4-83 Filed in PTO; assignment recorded.  
6-28-83 Prior art statement.

\* \* \* \* \*

**484359** PM 1030 CONT/PRODUCTION OF MONOACYLPYRAZINES

D. Williams, Y. Houminer, and R. Southwick  
Chemical Research/Sanders/Osdene

This invention provides a process for preparing monoacylpypyrazines which involves coreacting a pyrazine compound and an aldehyde compound under free radical conditions in a heterogeneous reaction medium consisting of an organic phase and an aqueous phase.

Inskeep/D&O  
9-30-81 Filed in PTO; assignment recorded.  
7-14-82 Action rejecting all claims (response due 14 October).  
10-82 Amendment.  
12-23-83 Final rejection.  
2-9-83 Amendment.  
3-11-83 Advisory action.  
3-15-83 Request for 1-month extension.  
4-19-83 SN 307262 abandoned and continuation filed in PTO.  
11-2-83 Action rejecting all claims (response due 2 February).

Foreign applications/patents corresponding to parent (SN 307262) in: Canada, and EPO designating Germany, Netherlands, and UK.

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1000082830

484384 PM 1156/START-UP PROCESS FOR THE THERMOPHILIC DENITRIFICATION OF TOBACCO

I. Uydess  
Biomaterials/Whidby/Farone

Process for the start-up of high-temperature processes for the denitrification of tobacco materials via an anaerobic dissimilatory metabolic pathway of thermophilic organisms. The process advantageously permits the induction of denitrification activity through the use of a seed culture which, itself, is the product of a previous thermophilic denitrification treatment of the same type as that to which the start-up process is directed.

Gregory/F&N/Pierri  
4-12-83 Filed in PTO; assignment recorded.

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490566 1078/LASER BEAM INTERRUPTER AND DIVIDER

R. Brinker  
Engineering/Taylor/Kay

An optical device for converting a single, continuous incident laser beam into a plurality of pulsed laser beams is provided. The device uses a rotatable first optical refracting element to cause the incident laser beam to sweep the surface of an imaginary cone. A circular or elliptical array of fixed, second optical refracting elements is placed in the path of the sweeping beam. The array is mounted in a holder of opaque energy-absorbing material separating that element from the next fixed second optical refracting element. As the beam sweeps a complete circle or ellipse, a pulsation effect is created by this repetitive transmission and absorption, giving rise to a plurality of pulsed output beams. Such a device can be incorporated into a system for perforating a web of sheet material with pulsed laser beams.

Sarofeen/F&N/Giannetti  
5-2-83 Filed in PTO; assignment recorded.  
9-27-83 Status inquiry.  
10-11-83 Associate power of attorney.  
11-9-83 Information disclosure statement; petition pursuant to MPEP 724.05 to expunge material submitted under MPEP 724.02.

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1000082831

496352 1149/APPARATUS FOR PACKING OVAL CIGARETTES

J. Wheless and R. Dickerson  
Engineering/Kay/Taylor

A method and an apparatus are disclosed for arranging oval cross-sectional rod-shaped smoking articles whose circumferential orientation is initially random into groups of a predetermined number of articles spaced a predetermined distance apart and having a predetermined circumferential orientation, and moving the group as a whole to load it into a container.

Sarofeen/F&N/Diana  
5-19-83 Filed in PTO; assignment recorded.

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496353 1137/ROLL-YOUR-OWN CIGARETTE MAKER

R. Newsome  
Cigarette Development/Gauvin/Meyer

A pocket-sized roll-your-own cigarette maker is disclosed. The cigarette maker includes one or more elements defining a tobacco chamber to receive a charge of tobacco to be made into a single cigarette, and a mandrel which serves as a form for making a cigarette wrapper into a paper tube to receive the tobacco charge. The mandrel includes a tamping device for tamping the charge of tobacco into the proper shape and into place in the paper tube. A tongue member may be provided on the tamping device to aid in moving the tobacco charge into the tube. A stop element may also be provided to hold the paper tube in place adjacent the tobacco chamber to receive the charge of tobacco.

Sarofeen/F&N/Diana  
5-19-83 Filed in PTO; assignment recorded.

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1000082832

509160 1131/ROTARY BEAM CHOPPER WITH CONTINUOUSLY VARIABLE DUTY CYCLE

P. Martin  
Physical Research/LaRoy/Farone

Apparatus for converting a single, continuous incident laser beam into at least one pulsed laser beam, with a duty cycle of pulsation that is continuously variable between a minimum value and a maximum value, is provided. The apparatus uses a rotatable disc of nontransmissive material which has a plurality of apertures and adjacent nontransmissive portions disposed in an annular zone. The ratio of the width of each aperture to the width of the adjacent nontransmissive portion varies radically from a minimum ratio to a maximum ratio. As the disc is rotated, the beam is alternately transmitted and blocked, so that a pulsed output beam emerges. The duty cycle of the beam can be adjusted by radially varying the point of incidence of the incident beam within the annular zone so that it impinges on the zone at a radius at which the ratio of widths is at a desired value. Such apparatus can be incorporated into a system for perforating a web of sheet material with a pulsed laser beam.

Sarofeen/F&N/Giannetti  
6-29-83 Filed in PTO; assignment recorded.  
8-31-83 Information disclosure statement.  
10-11-83 Associate power of attorney.

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1000082833

509569 1114/CIGARETTE WITH SELECTABLE DILUTION LEVEL

E. Grollimund and J. DeBlasio  
Engineering/Kay/Taylor

A cigarette in which the air dilution of the smoke drawn from the tobacco section during smoking to the smoker's mouth may be controlled by use of occluder tips. A central passage in the wall of a cigarette mouthpiece arranged in alignment with the tobacco section is ventilated by providing one or more rows of perforations in the wall. By covering the perforations fully or partially with a slideable separate occluder sleeve tip, the ventilation passages may be segregated from the central passage in a manner which prevents commingling of the smoke stream and ventilating streams prior to the delivery of each to the smoker's mouth, or may allow commingling of smoke and air in the filter body. The present invention provides for a separate occluder sleeve or sleeves adapted to receive and cooperatively seal off perforations in the wall of the cigarette mouthpiece. A stop shoulder or markers on transparent walls are provided in a recess in the occluder sleeve the depth of which predetermines the number of perforations to be occluded in the cigarette wall. Thus, a smoking system is provided whereby the smoker may readily preset the level of smoke dilution desired prior to light up of a cigarette so configured.

Sarofeen  
6-30-83 Filed in PTO; assignment recorded.

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1000082834

510997 PM 960 CONT./FORMULATION OF A COLA-TYPE SOFT DRINK

A. Lendvay  
Beverage Products/Assar

Phosphoric acid in the form of dry, pourable fine granules for instant beverage mixes as an acidulant and the process for preparing the same. The free flowing acidic material of this invention dissolves quickly and completely in water which may also be flavored and carbonated.

Related to 962.

Abandoned Inskeep/D&O  
9-14-81 Filed in PTO; assignment recorded.  
12-22-81 Prior art statement.  
10-5-82 Action rejecting claims 1-12 and objecting to 8 (response due 5 January).  
1-4-83 Request for 1-month extension. Approved.  
1-31-83 Amendment.  
3-7-83 Action rejecting all claims (response due 7 June).  
6-3-83 Interview with examiner—examiner maintained rejection.  
7-5-83 SN 301621 abandoned and continuation filed in PTO.  
12-5-83 Final rejection (response due 5 March).  
12-28-83 Decision to abandon.

Foreign applications/patents corresponding to parent (SN 301621) in: Greece, and EPO designating Germany, Italy, Netherlands, and UK.

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519167 PM 976 DIV/DISPENSING ASSEMBLY FOR AMMONIUM CARBAMATE PRODUCTION

J. Washington, D. Fillenwarth, and F. Utsch  
Development Engineering/Mutter/Turano  
Tobacco Materials/Knudson/Turano

This invention provides a dispensing assembly which is adapted to deliver two separate instantaneously coreactive liquid streams into an external contacting zone. The two reactants do not make contact within the body of the dispensing assembly, which prevents solid product formation and clogging within the dispensing assembly nozzles. The dispensing assembly is suitable for the coreaction of liquid carbon dioxide and liquid ammonia to produce free-flowing ammonium carbamate powder having a purity of substantially 100 percent.

Inskeep  
8-1-83 Filed in PTO.  
9-8-83 Notice of incomplete application papers.  
9-19-83 New declaration filed.

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100082835

519424 1151/SMOKING COMPOSITIONS CONTAINING A FLAVORANT-RELEASE ADDITIVE

K. Podraza and Y. Houminer  
Chemical Research/Sanders/Osdene

This invention provides smoking compositions which contain a tetracarbonate ester compound as a flavorant additive.

Inskeep/D&O  
8-1-83 Filed in PTO; assignment recorded.  
11-7-83 Information disclosure statement.

\* \* \* \* \*

519605 1150/TOBACCO ROD FIRMNESS SENSOR

C. Irving and J. Osmalov  
Tobacco Fundamentals/Watson/Turano  
Tobacco Materials/Knudson/Turano

A tobacco rod firmness sensor arrangement wherein the tongue of a continuous rod type cigarette making machine is divided into an upstream portion and a downstream portion. The upstream portion is independently mounted from the downstream portion and is associated with sensor means to measure the force exerted by the tobacco rod compressed between the upstream portion and the garniture. Calibration of the sensor means is unaffected by adjustment of the downstream portion of the divided tongue.

Related to PM 779

Gregory  
8-2-83 Filed in PTO VIA EXPRESS MAIL; assignment recorded.

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1000082836

**519612 PM 964 DIV III/SMOKING COMPOSITIONS**

**Y. Houminer and H. Grubbs**  
Chemical Research/Sanders/Osdene

This invention provides tobacco and non-tobacco smoking compositions which contain a heterocyclic-hydroxy-substituted carboxylate compound as a flavorant additive.

**Inskeep**  
8-2-83 Filed in PTO.  
20-37-84 New declaration.

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**519618 PM 641 DIV II/MODIFIED CELLULOSIC SMOKING MATERIAL AND METHOD FOR ITS PREPARATION**

**G. Keritsis**  
Tobacco Fundamentals/Watson/Turano

An improved smoking material affording reduced particulate matter and puff count yet having the flavor and aromatic qualities of natural tobacco, which comprises cellulosic material having incorporated therein a metal salt from the group consisting of calcium salts, magnesium salts, iron salts, and aluminum salts of various organic or inorganic acids. A process for producing such a synthetic smoking material is also disclosed. The process preferably comprises forming an aqueous slurry of the cellulosic material, preferably in the form of loose and slightly beaten cellulose fibers, adding the metal salt to the slurry, casting the same and thereafter drying, conditioning and slitting or cutting the resulting sheet to produce a low tar filler material. A preferred embodiment of the invention resides in foaming the slurry prior to casting the same to form an expanded product.

**Inskeep**  
8-2-83 Filed in PTO.  
9-7-83 Notice of incomplete application papers.  
9-15-83 New declaration filed.  
11-30-83 Status inquiry.

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1000082837

519619 PM 641 DIV III/MODIFIED CELLULOSIC SMOKING MATERIAL AND METHOD FOR ITS PREPARATION

G. Keritsis  
Tobacco Fundamentals/Watson/Turano

An improved smoking material affording reduced particulate matter and puff count yet having the flavor and aromatic qualities of natural tobacco, which comprises cellulosic material having incorporated therein a metal salt from the group consisting of calcium salts, magnesium salts, iron salts, and aluminum salts of various organic or inorganic acids. A process for producing such a synthetic smoking material is also disclosed. The process preferably comprises forming an aqueous slurry of the cellulosic material, preferably in the form of loose and slightly beaten cellulose fibers, adding the metal salt to the slurry, casting the same and thereafter drying, conditioning and slitting or cutting the resulting sheet to produce a low tar filler material. A preferred embodiment of the invention resides in foaming the slurry prior to casting the same to form an expanded product.

Inskeep  
8-2-83 Filed in PTO.  
9-16-83 New declaration filed.  
9-23-83 Notice of incomplete papers.  
11-30-83 Status inquiry re declarations.

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519785 PM 964 DIV II/SMOKING COMPOSITIONS

Y. Houminer and H. Grubbs  
Chemical Research/Sanders/Osdene

This invention provides tobacco and non-tobacco smoking compositions which contain a heterocyclic-hydroxy-substituted carboxylate compound as a flavorant additive.

Inskeep  
8-2-83 Filed in PTO.  
10-26-83 Notice of incomplete papers.  
10-27-83 New declaration filed.

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1000082838

522149 1160/TOBACCO TRIMMER DEVICE

R. Gibbs and J. Remington

A tobacco stream is formed on the underside of a vacuum belt conveyor and is transported past a tobacco trimming device to be converted into a rod-like filler which is draped onto cigarette paper and severed to yield discrete cigarettes which are united with filter plugs. The trimming device consists of overlapping disc knives. The overlapping of the discs knives eliminates the need for brushes to remove excess tobacco.

Blish

8-11-83 Filed in PTO; assignment recorded.

12-5-83 Information disclosure statement.

\* \* \* \* \*

526365 1103/FILTER MATERIAL FOR THE REMOVAL OF NITRIC OXIDE

N. Rainer and C. McClung

Tobacco Fundamentals/Watson/Turano

A composition for removal of NO from smoke, effective after storage in the presence of moisture and the volatile components of tobacco, comprising, by weight of the total composition, from about 5% to about 40% of a permanganate selected from the group consisting of NaMnO<sub>4</sub>, Ca(MnO<sub>4</sub>)<sub>2</sub> and mixtures thereof, from about 0.5% to about 6% colloidal silica, from about 40% to about 90% silica gel and from about 4% to about 30% H<sub>2</sub>O, with the silica gel having a granule size of from about 20 to about 100 mesh and an initial pore volume of from about 0.6cc/g to about 1.4cc/g. Alumina gel may be used in place of part of the silica gel in order to reduce the temperature of the smoke.

Inskeep/F&N/Hendricks

8-25-83 Filed in PTO; assignment recorded.

12-6-83 Information disclosure statement.

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1000082839

**529248 1120/PRODUCTION OF JUICE CONCENTRATES**

**W. Winterson, K. Assar, P. McCamant  
Beverage R&D/Assar**

Concentrated, sterile fruit juice is prepared without heat treatment of the liquid portion by separating fresh fruit juice into pulp and liquid portions and sterilizing the liquid, for example by ultrafiltration. The liquid is then freeze-concentrated. Any pulp which is to be recombined is pasteurized.

**Inskeep  
9-6-83 Filed in PTO.  
12-28-83 Information disclosure statement.**

\* \* \* \* \*

**530189 1165/APPARATUS FOR PLACING PALLETS ON A LOADING SURFACE**

**M. Berger, J. Bernasconi, M. Juillerat  
FTR (EP 83810308.3 filed 7-6-83)**

A pallet is positioned on its edge in a receiver where it is restrained by a dog. The action of a jack is such as to fold back the receiver for the guidance of the pallet to a position. Two jacks drive arms, the stops on which restrain the pallet and guide it to a loading position, releasing the receiver, which can be raised. The jacks provide the means for putting the followers into conveying position.

**Gregory  
9-8-83 Filed in PTO.  
9-26-83 Notice of incomplete application papers (response due 8 November--FTR sending new forms).**

**Corresponding foreign applications/patents in: EPO.**

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**1000082840**

532439 1136/DIVIDER STRUCTURE FOR USE AS AN INSERT WITHIN A CARTON

D. Evers, S. Rinehart  
Engineering/Tew/Kay/Taylor

A divider structure for use as an insert within a carton. The divider separates packages into columns within the carton and facilitates the orderly dispensing of the packages through a main panel of the carton. The divider is especially useful in connection with a carton having a platform located directly beneath an opening in the main panel through which the packages are dispensed. The divider structure includes a pair of divider walls insertable between the columns of packages. The divider walls have a top panel interconnecting their upper portions and a plurality of tabs are struck from the divider walls and are positioned to overlie each other. By making the tabs struck from one wall wider than the tabs from the other wall and positioning the wider tabs over the thinner tabs, a desired spacing is maintained between the walls. When packages of dissimilar heights are dispensed, a false bottom is utilized on the associated columnar side of the divider.

Schardt  
9-15-83 Filed in PTO with citation of prior art.

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532661 1149 CIP/APPARATUS FOR PACKING OVAL CIGARETTES

J. Wheless and R. Dickerson  
Engineering/Kay/Taylor

A method and an apparatus are disclosed for arranging oval cross-sectional rod-shaped smoking articles whose circumferential orientation is initially random into groups of a predetermined number of articles spaced a predetermined distance apart and having a predetermined circumferential orientation, and moving the group as a whole to load it into a container.

Sarofeen/F&N/Diana  
9-15-83 Filed in PTO (CIP of pending SN 496352); assignment recorded.

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1000082841

**542247 PM 689 CIP/PROCESS FOR MAINTAINING INCREASED FILLING POWER OF  
TOBACCO PRODUCTS**

G. Keritsis  
Tobacco Fundamentals/Watson/Turano

A process for maintaining increased filling power of tobacco products, in which an effective amount of at least one cross-linking agent is applied to the tobacco products and reacted with various components therein. The cross-linking agent may be applied directly or in the form of a solution, and is preferably employed in conjunction with an expansion treatment of the tobacco products.

Related to 641; see also 653.

Inskeep/F&N/Shaw

9-21-82 Filed in PTO; assignment recorded.  
8-30-83 Information disclosure statement.  
9-16-83 Supplemental information disclosure statement.  
10-14-83 SN 420834 abandoned and CIP filed in PTO.  
11-23-83 Action on SN 420834.

Foreign applications/patents corresponding to parent (SN 420834) in: Australia.

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**547936 PM 735A CONT. INTERFERENCE/METHOD AND APPARATUS FOR THE  
MANUFACTURE OF SELF-SUPPORTING POROUS STRUCTURES**

G. Mathe, T. Laszlo, J. Nienow

Sarofeen/F&N/Diana

11-2-83 Continuation of SN 370521 filed with preliminary amendment and statement pursuant to 37 CFR 1.205 filed to provoke interference with the Mochida et al. patent US 4357188.

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1000082842

556736 1178/IMPURITY DETECTOR USING SCATTERED ELECTROMAGNETIC RADIATION

D. Lowitz  
Applied Research/Farone

An impurity detector using scattered electromagnetic radiation from a sample of bulk material is disclosed and claimed. It includes a generator of a narrow beam of electromagnetic radiation directed toward the sample. A radiation detector is responsive to scattered radiation at a predetermined scattering angle to generate a signal indicative of the intensity of scattered radiation. A change in the output of the detector indicates the presence of an impurity in the sample.

Schardt/F&N/Indyk  
11- -83 Filed in PTO.

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1161/STEAM DELAMINATING CYLINDER

Steve Muller  
Engineering/Kay/Taylor

A steam delaminating cylinder is disclosed which reduces the damage caused by pin feeders and combines the conditioning and delaminating step. Tobacco bales are transported to a cylinder by a conveyor. Steam from nozzles conditions tobacco as the cylinder rotates. A hood serves to contain the steam. The conveyor transports loose tobacco leaves out of the delaminating cylinder after the leaves have passed through the openings in the cylinder.

Blish  
12- -83 Filed in PTO.

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1000082843

1133/SLITTER KNIFE ADVANCE UNIT

M. Garthaffner  
Engineering/Tew/Kay/Taylor

A method and apparatus are disclosed for severing double-length cigarettes and the like. According to the invention, a slitter knife is maintained in whetting engagement with a whetting mechanism, so that the slitter knife never becomes dull. This is preferably achieved by mounting the slitter knife on a pivotable carriage and providing an automatic control system which pivots the slitter knife to maintain it in the desired engagement with the whetter. A feedback system may be included, to monitor the sharpness of the slitter knife and indicate when adjustment of the slitter knife position is required.

Sarofeen/F&N/Diana  
12- -83 Filed in PTO.

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1178/IMPURITY DETECTOR USING SCATTERED ELECTROMAGNETIC RADIATION

D. Lowitz  
Applied Research/Farone

An impurity detector using scattered electromagnetic radiation from a sample of bulk material is disclosed and claimed. It includes a generator of a narrow beam of electromagnetic radiation directed toward the sample. A radiation detector is responsive to scattered radiation at a predetermined scattering angle to generate a signal indicative of the intensity of scattered radiation. A change in the output of the detector indicates the presence of an impurity in the sample.

Schardt/F&N/Indyk  
12- -83 Filed in PTO.

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